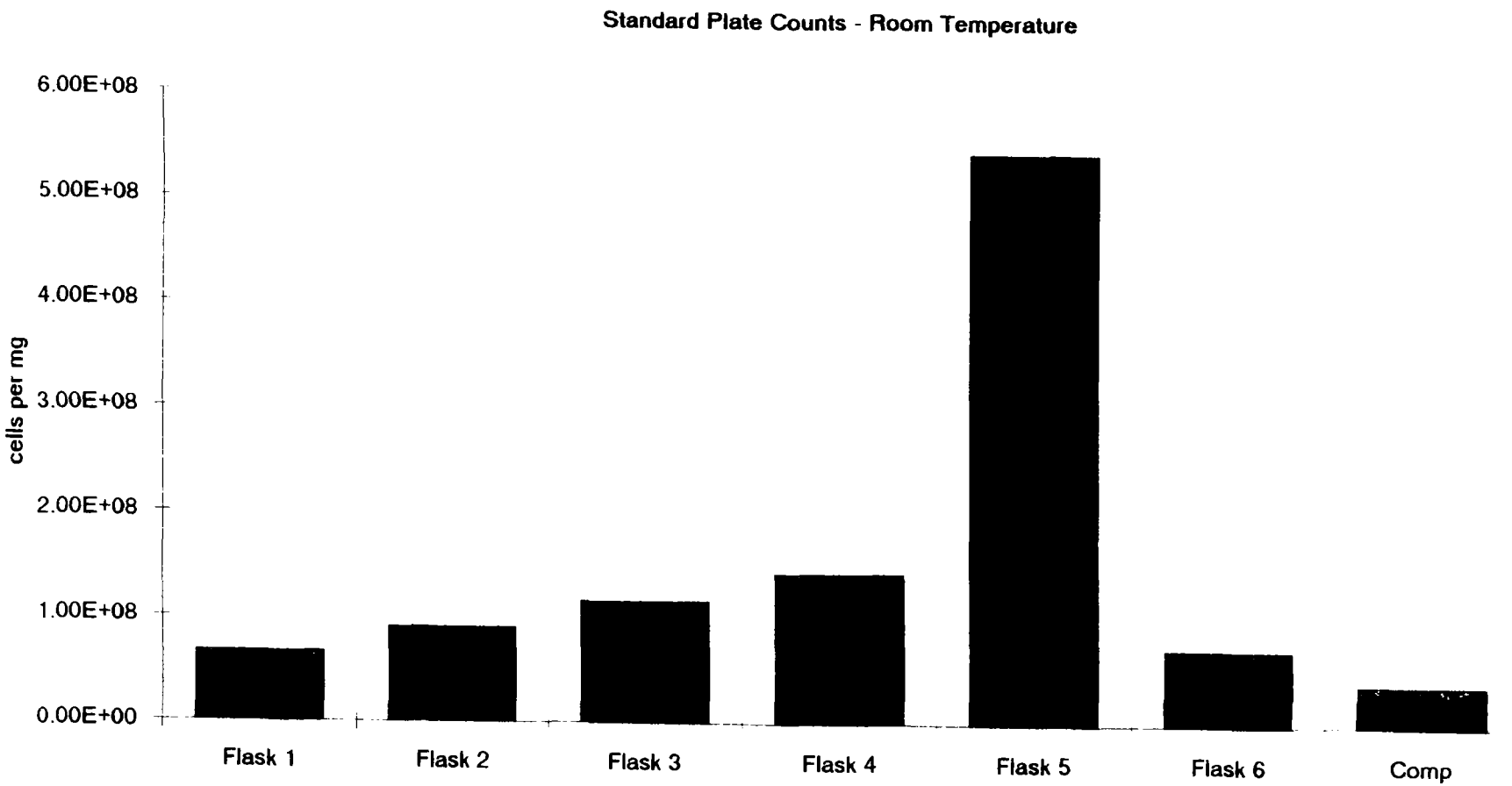
Figure 6
Acustar - Dayton, Ohio



The type of hydrocarbon and its concentration also have a significant impact on biological activity. Hydrocarbons with less than 10 carbon atoms are relatively easy to degrade as long as the concentrations are not toxic to the bacteria. As molecular size increases, the rate will decrease at an almost disproportionate rate. Gasoline contains five to fourteen carbon atoms. Kerosene contains nine to eighteen carbon atoms. Light oils contain fourteen to eighteen carbon atoms and heavy oils contain nineteen to twenty five carbon atoms. The soils in this study were apparently contaminated with a variety of oils which contain approximately five to fourteen carbon atoms. This may slow the rate of bioactivity.

In order to approximate total TPH levels in the soil composite sample, **Clean Tech** utilized EPA Method 9071. The initial soil composite contained an approximate TPH level of 113 ppm. At the end of the study, Reactor Vessel 5 (8% nutrients) contained no detectable concentration of TPH. The live control (Reactor Vessel 6) had an approximate end TPH value of 113 ppm. The dead control (Reactor Vessel 7) had an approximate end TPH value of 113 ppm. The above data indicates that the bacteria had successfully degraded the contaminants of concern as evidenced by the lack of contaminants in vessel 5.

In order to determine the TPH levels in the Cold study, the same EPA Method 9071 was used. Again the initial soil composite contained 113 ppm of TPH. At the end of the study, Reactor Vessel A (8% nutrients) contained no detectable concentrations of TPH. The live control (Reactor Vessel B) had an end TPH value of 110 ppm. The dead control (Reactor Vessel C) had an end TPH value of 110 ppm. The above data, while only an approximation does show a consistent trend.

The third factor affecting bioremediation is soil type. This affects the ability of the soil to transmit air, water and nutrients. More permeable soils allow rapid mobility of nutrients. The soils analyzed in this study contained some silt and clay which may somewhat restrict permeability. If the soils are excavated and amended with an organic source this will increase permeability. The excavation and tilling process will also allow enhanced aeration to occur which will further increase the transfer of nutrients to the soils. Soil pH will also

have to be adjusted. If the soils are not excavated, a drainage system must be installed properly to allow rapid infiltration.

Nutrients and the bioavailability of nutrients is another critical factor. Nitrogen and phosphorous are the most critical nutrients lacking in the test soils, although it is almost certain that other micronutrients are also deficient. The nutrients added in the study were rapidly depleted. Another key factor which had affected nutrient availability is adsorption. Clay soils have a high retention capacity for nutrients. The initial addition of nutrients to the soils may have been tightly bound to the soil thereby allowing only minimal amounts to be available for microbial growth. Therefore, using standard stoichiometric equations will not provide feed rate solutions. Assumptions must be made on the adsorptive capacity of the soils.

Other factors which are important but which were not a restrictive factor in this study include temperature and moisture availability. Temperature was kept stable at ambient conditions throughout the first part of the study at approximately 20°C. However, during the second part of the study (Cold study) the temperature was kept stable at 4°C. Even though both studies showed an increase in microbial activity, the ambient study indicated greater respiration rates and biomass production (See Figures 7 and 8). Moisture availability was also adequate. The majority of the initial samples were above 10%, which is the level at which bioactivity becomes marginal.

The last critical factor in this study is oxygen availability. Oxygen availability controls the rate at which aerobic organisms can function. One liter of air contains 20% oxygen or 256 mg of oxygen. Bioactivity in unsaturated soils, is much faster than in saturated soils since an adequate air supply can be provided. All samples were aerated at normal atmosphere concentrations. Enhanced biodegradation will need additional dissolved oxygen.

Figure 7
Acustar - Dayton, Ohio

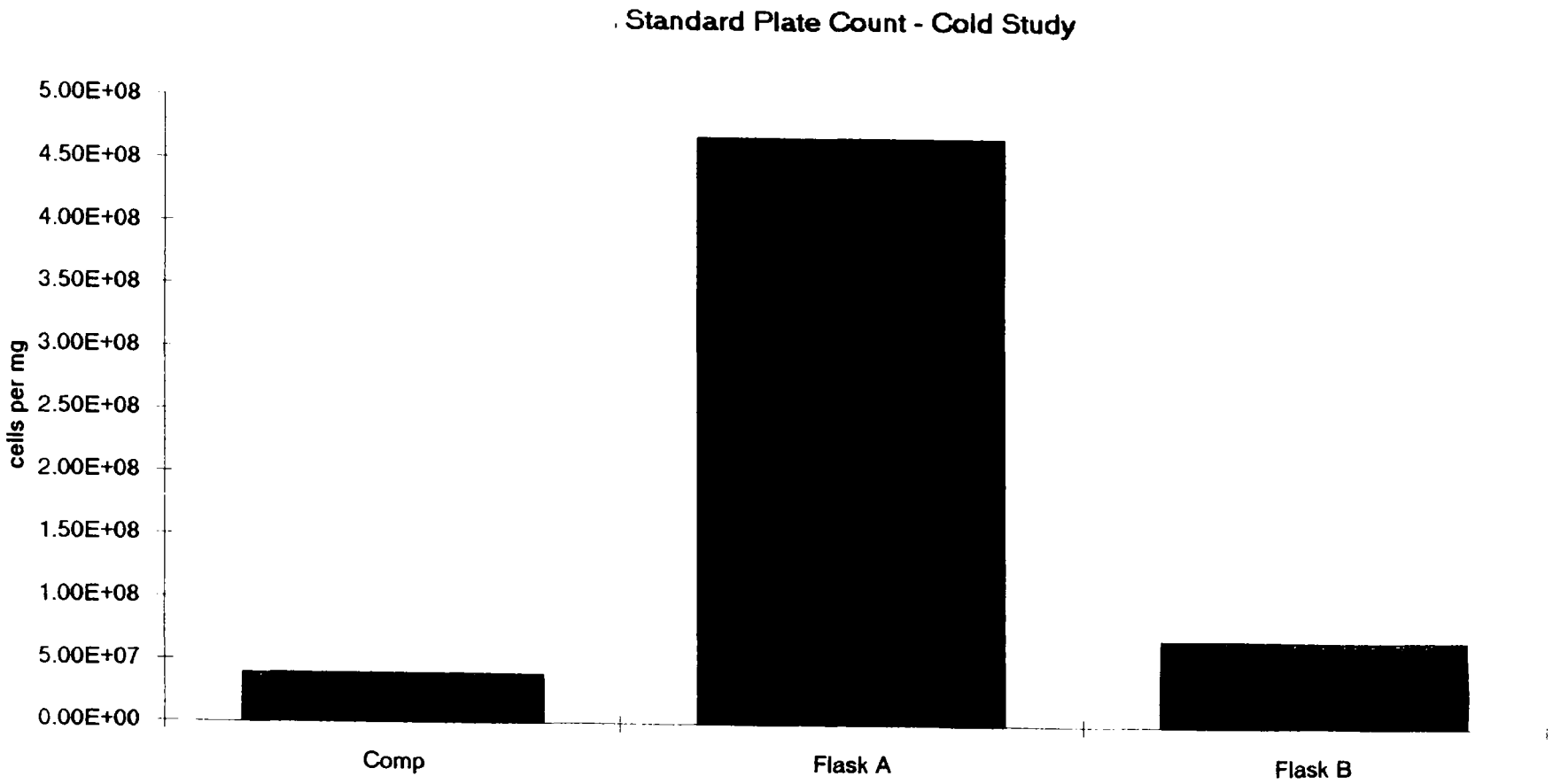
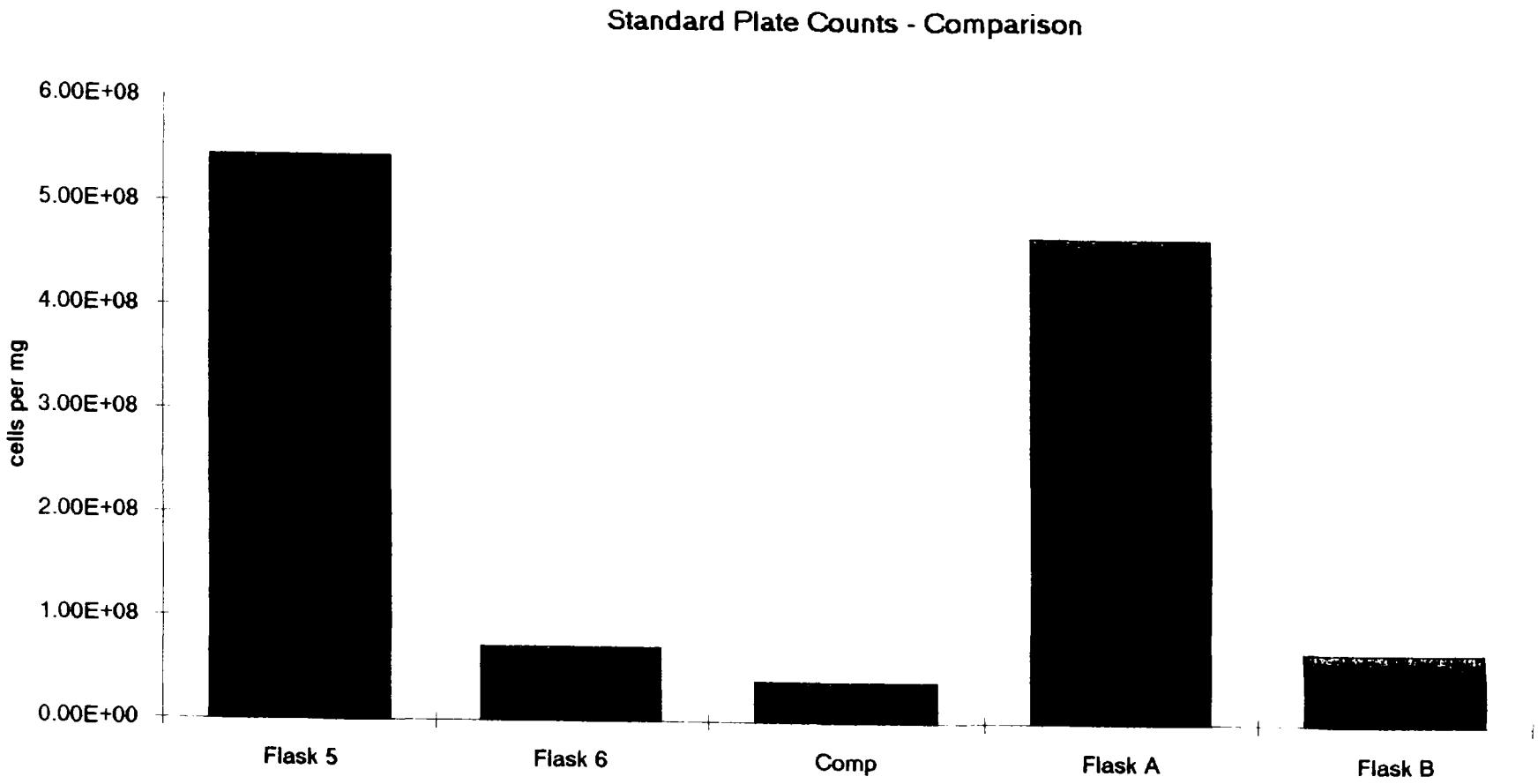


Figure 8
Acustar - Dayton, Ohio



In summary, the following recommendations are made:

1. The study indicates that biological activity is occurring at the site although at low levels. The contaminants of concern can be degraded, as evidenced by this study. The study indicated that there are several environmental factors at the site severely restricting biodegradation.

2. Enhanced biodegradation will degrade the contaminants of concern however site conditions must be significantly altered. In order to increase the rate of biodegradation, microbial growth rates must be increased. This will be accomplished by adjusting the environmental factors which are restrictive. These include:

   pH - The pH of the soil is near neutral to alkaline. Once metabolic activity begins, the soils will become more acidic. Additives must be used to adjust the pH to neutral levels.

   Organic Matter - The soils have apparently been depleted of organic matter. The soils should be amended with a peat or other organic rich substance. This will not only increase the nutrients in the soil but will also assist with aeration, moisture and nutrient retention.

   Nutrients - The study confirmed that all essential nutrients were lacking at the site. The soils should be amended with nitrogen and phosphorous as discussed in previous sections.

   Oxygen Availability - Oxygen levels must be increased in the soils to increase bioremediation.

3) The feasibility study conducted on the soils indicated that microbial respiration, as determined by carbon dioxide evolution measurements, was occurring. The study indicated that the growth of the indigenous community under ambient conditions was occurring but at a very slow rate. Even though hydrocarbon degrading microbes are present, the present environmental conditions do not allow the existing microbes to function effectively.

4) A pilot study should be completed in the field with the soils amended as described in this report. The soils should be placed on a liner system which will capture run-on and run-off. The site should be monitored for all the key factors such as; pH, temperature, bacterial enumeration, nutrient levels, and contaminant levels. It would also be helpful to include in-place lysimeters which would measure CO_2 production levels in the field. The study should closely simulate the conditions which would exist for land-farming.

The study did conclude that biological activity was occurring at minimal rates due to restrictive site factors. Nutrient concentrations must be maintained to sustain biological activity due to the retention of nutrients by the soils. Oxygen availability is another major factor. The soils must be treated in a manner such that the microbes do not experience anaerobic conditions. The study did confirm that the soils on the site were amendable to bioremediation.

A combination of site factors and the type and concentrations of contaminants have affected biodegradation. A pilot test should be designed to mitigate these limiting factors.

CLEAN **TECH**

SOLID PHASE BIOREMEDIATION TECHNOLOGIES OF PETROLEUM CONTAMINATED SOILS

Prepared by:

Clean Tech, Inc.
2700 Capitol Trail
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November 17, 1995

TABLE OF CONTENTS

APPLICATION OF SOLID PHASE BIOREMEDIATION TECHNOLOGIES OF PETROLEUM CONTAMINATED SOILS

ABSTRACT

Bioremediation technologies use microorganisms (both bacteria and fungi) to degrade contaminants such as petroleum hydrocarbons, chlorinated solvents and halogenated aromatic hydrocarbons. Bioremediation technologies can be used to effectively remediate contaminated water, air and soils through effectively mitigating rate limiting factors to optimize the process. This report will detail the process of treating soils biologically to decontaminate soil impacted by fuel oils and hydraulic lubricating oils at the Chrysler Facility in Dayton, Ohio.

This technology was applied to remediate contaminated soils that were stockpiled into two separate piles. Investigations during construction and demolition activities indicated that the soils had been impacted by fuel oils and hydraulic oils

The soils were analyzed for Total Petroleum Hydrocarbons (TPH). Previous analytical reports were obtained for volatiles. Concentrations ranged from approximately 300 mg/kg in the most contaminated areas to non-detect in the least contaminated areas. Regulatory imposed cleanup criteria was 105 mg/kg for TPH. Prior to moving the soils to a treatment cell, a treatability study was completed. The study provided critical information on environmental limiting factors such as, oxygen requirements, nutrients and cofactors, and bacterial population data.

After the treatability study determined that the soils were amenable to bioremediation, the individual soil piles were moved and combined into one, lined treatment cell. The

treatment cell was lined with a PVC liner. A bioreactor was mobilized on-site to supply nutrients, bacteria and other supplements to the soils to enhance the biodegradation process. Run-off from the treatment cell was captured in a sump and pumped into the bioreactor where the water was amended with nutrients and bacteria and recirculated back into the treatment cell.

In approximately 200 days of treatment, TPH was analyzed and the soils were below Ohio EPA standards of 105 mg/kg.

SECTION 1.0 - INTRODUCTION

Bioremediation is capable of degrading organic compounds in contaminated soils. The method of applications may vary but all bioremediation applications use microorganisms indigenous to the site (bacteria and fungi) to degrade the contaminants of concern to carbon dioxide, cell mass and water. The rates of bioremediation of contaminated soils are controlled by optimizing the following: oxygen levels, moisture content, nutrient availability, pH, soil type, and the bacterial population.

A solid phase biotreatment program requires optimization of these factors to accelerate degradation rates. The following sections discuss in greater detail the results of the bioremediation program at the Dayton site.

SECTION 2.0 -BACKGROUND

The Dayton Thermal Products (DTP) plant is part of Chrysler Components, a division of the Chrysler Corporation (Chrysler). The site is located at 1600 Webster Street in Dayton, Ohio.- The facility encompasses approximately 60 acres and contains over 1.3 million square feet under roof. Current operations at the facility include the manufacture, assembly and finishing of heat exchangers and air conditioning components for motor vehicles. The facility consists of eight manufacturing buildings, a powerhouse, wastewater treatment plant and associated storage buildings.

Past operations at the site prior to Chrysler's acquisition in 1936 included the assembly of Maxwell automobiles from about 1907 through 1936, and other manufacturing processes such as furnaces, gun parts, aluminum and copper tube forming operations, light machining, plating, metal stamping, welding, soldering, degreasing, painting, plastic

molding and assembly, as well as maintenance of these processes, equipment and structures. The Maxwell Complex, which was a group of twelve former buildings, was used by Chrysler until 1990 when it was demolished. A portion of the Maxwell Complex footprint was replaced by a new manufacturing building (number 59) in 1991. Investigations completed during the demolition and construction indicated that the soils were impacted with petroleum hydrocarbons and volatiles. The excavated soils were stockpiled on site to be remediated at a later date.

SECTION 3.0 - BIOTREATABLITY STUDY

The purpose of the biotreatability study was to determine if indigenous microorganisms found at DTP were capable of degrading the petroleum hydrocarbons found in the soil. The treatability study also included extensive testing of the TPH concentration in the excavated soils.

SOIL SAMPLING

In order to determine the extent of contamination and to collect a representative collection of samples for the treatability study, several composite soil samples were taken from the two (2) soil piles contained on site. The first set of six (6) samples were taken from the pile designated the "TPH pile". These samples were composites which were collected from borings at the top of the pile and at various locations on the side slopes of the piles. The borings had an average depth of four (4) feet.

The second set of six (6) samples were taken from the pile designated as the "unknown pile". A total of six (6) composite samples were taken from borings at the top and from various locations on the side slopes of the pile. The borings had an average depth of six (6) feet.

TREATABILITY STUDY

The soil samples were analyzed for pH, nitrate-nitrogen, phosphorous, organic matter, ammonia-nitrogen, nitrite-nitrogen and soil moisture prior to beginning the treatability study. The following table presents the results of those analyses.

TABLE 1

SOIL CHEMICAL CHARACTERISTICS - INITIAL SAMPLES - DAYTON

Sample No.	pH	Nitrate	Phosphorous	Ammonia Nitrogen	Nitrite	Organic Content	Moisture %
TPH1	8.2	<5 ppm	100 ppm	ND	ND	ND	19.65
TPH2	8.1	<5 ppm	75 ppm	ND	ND	ND	17.87
TPH3	8.2	<5 ppm	100 ppm	ND	ND	ND	20.2
TPH4	8.5	<5 ppm	75 ppm	ND	ND	ND	9.8
TPH5	8.5	<5 ppm	100 ppm	ND	ND	ND	2.11
TPH6	8.1	<5 ppm	100 ppm	ND	ND	ND	7.34
Unknown 1	8.3	<5 ppm	75 ppm	ND	ND	ND	7.38
Unknown 2	8.2	10 ppm	100 ppm	ND	ND	ND	6.01
Unknown 3	8.6	<5 ppm	75 ppm	ND	ND	ND	8.24
Unknown 4	8.3	<5 ppm	75 ppm	ND	ND	ND	9.75
Unknown 5	8.4	<5 ppm	100 ppm	ND	ND	ND	8.47
Unknown 6	8.2	<5 ppm	75 ppm	ND	ND	ND	6.43
TPH Average *	8.25	<5 ppm	91.67 ppm	ND	ND	ND	12.8
Unknown Average*	8.3	<5 ppm	83.3 ppm	ND	ND	ND	7.7
Composite *	8.2	<5 ppm	75 ppm	ND	ND	ND	11.54

NOTE:
*Average - The arithmetic average of the samples taken from DTP.
*Composite - The chemical characteristics of the samples used for the biotreatability study which was a composite from each of the twelve samples
ND = Not Detected (<1 ppm)

To initiate the study, a composite was taken from the twelve soil samples to create one composite sample for the treatability study. Fifty (50) grams of this composite sample were analyzed for initial TPH content.

Next, approximately fifty (50) grams of the composite sample were placed into each reactor vessel. The reactor vessels were allowed to stabilize and become acclimated for a period of two (2) days before their physical and chemical environments were altered. This permitted the determination of background respiration rates for each reactor vessel of what is known as the "lag phase" of bacterial growth.

Before the amendments were added, respiration rates during the lag phase were measured to ensure that the flasks which were amended were below or equal to the respiration rates measured in the two (2) control flasks. A total of five treatment variations were completed for the study. The reactor vessels were amended in the following manner:

TABLE 2

BIOMETER FLASK COMPOSITES

Reactor Vessel	Nutrient Percentages (Nitrogen, Phosphorous)
1	2%
2	4%
3	5%
4	6%
5	8%
6	No amendments (Live Control)
7	No amendments (Sodium Azide - Killed Control)

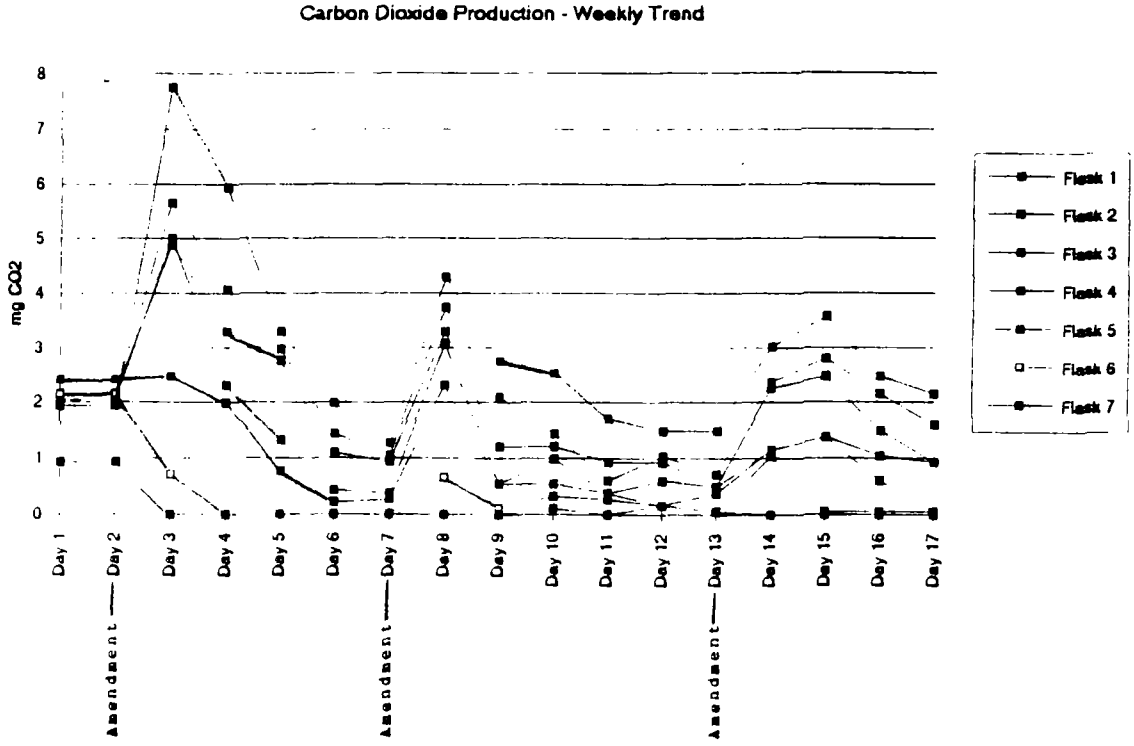
(NOTE: Nutrients: N:P = 10:15 ratio)

Biometer flasks numbers 6 and 7 were tested as controls. Flask number 6 contained a portion of the composite sample that was not chemically killed. This flask served as a

live control that provided background respiration rates of the bacteria throughout the study. Flask number 7 also contained a portion of the composite sample, but any microbes present in the sample were destroyed chemically with sodium azide (1% v/w final concentration). This second control provided data on the amount of carbon dioxide which could evolve from the soil and not the microbes.

The study was conducted over a ten day period (day in this study refers to a 24 hour period). All of the flasks were monitored for daily CO_2 production levels. As mentioned earlier, the flasks were allowed to equilibrate for two days (48 hours) before the nutrient amendments were added. Additional nutrients were added on Day four because the majority of nutrients were adsorbed to the clay of the soils, thereby making it unavailable. The second addition of an aliquot of nutrients was used to assess its affect on microbial activity.

CO2 GRAPH FROM TREAT STUDY



STUDY RESULTS

The purpose of the treatability study was to determine the site conditions which should be altered for optimal biodegradation. The study concluded that biological activity was occurring at minimal rates at the site due to restrictive growth factors. In order to increase the rate of biodegradation the microbial population could be increased by adjusting those environmental factors found to be restrictive which included:

- pH - The existing soils were slightly alkaline. Therefore, the pH of the soil needed to be neutralized. However, as the bacteria reduce the contaminants of concern, the pH of the soil will be reduced or acidified.
- Organic matter - It was determined that the site soils were depleted of organic matter. The soils need to be amended with peat or other organic rich substances during bioremediation. This will increase the nutrients present in the soil and also assist with aeration.
- Nutrients - The treatability study confirmed that all essential nutrients were lacking in the site soils. The soils needed to be amended with nitrogen and phosphorous to enhance biodegradation.
- Oxygen Availability - Due to the soils being stockpiled, oxygen diffusion did not occur readily.

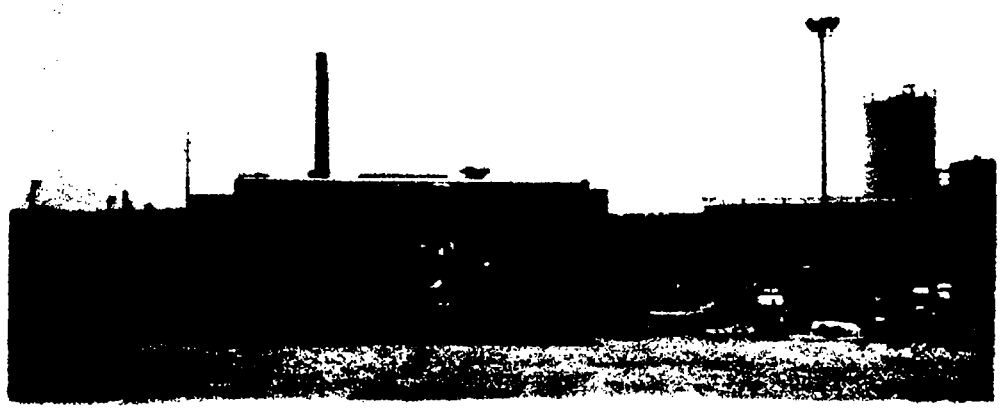
In summary, the treatability study indicated that biological activity was occurring at minimal levels due to restrictive growth factors at the site. Much higher nutrient amendments were required to sustain biological activity due in part to high nutrient adsorption capacity of the site soils and increased oxygen availability was necessary. Based on the observations of the treatability study, it was determined that full scale

bioremediation of the impacted soils was possible as long as the restrictive growth factors were monitored periodically.

SECTION 10 - BIOREMEDIATION OF THE IMPACTED SOILS

TREATMENT CELL CONSTRUCTION

In order to remediate the soils, it was necessary to consolidate the soils into one treatment cell. A 15 mil liner was installed over an existing area of pavement near the railroad tracks. The liner was impermeable to prevent any contaminants from leaching into the soils beneath the treatment cell. The soils were then placed on the liner system in a series of 2 lifts. The first lift was four (4) feet high, the second lift was three (3) feet high. Upon completion of the lifts, the entire biotreatment cell perimeter was surrounded by an earthen berm. The average depth of the soils placed in the treatment cell was approximately seven (7) feet. Once filled, the treatment cell contained approximately 15,000 cubic yards of contaminated soil.



BIOREACTOR OVERVIEW

The bioreactor utilized at the site was a modified sequencing batch reactor (MSBR). The MSBR was filled on a semi-continuous basis using a fill consisting of potable water and or recycled water from the treatment cell. The MSBR was controlled through a series of internal floats. Once the reactor was filled and operational, the system was continuously mixed and aerated by a diffuser system. As the mixing was occurring, the microbes identified and cultured in the earlier treatability study were fed into the reactor

on a semi-continuous basis. The addition of selected nutrients occurred continuously with periodic adjustments, which was based on analyses. The nutrient rich, microbe laden water was then discharged through a series of PVC pipes which vertically penetrated the surface of the treatment cell. Introducing the discharge to the top of the treatment cell allowed for the total filtration of the microbes and nutrients throughout the contaminated soil. The bioreactor became operational in July 1993.

BIOLOGICAL MONITORING THROUGH THE BIOTREATMENT PROCESS

The soils in the treatment cell were periodically analyzed for the following parameters: pH, phosphorous, nitrate, nitrite, and ammonia. In addition to these parameters, soil moisture and TPH were also analyzed. The analytical methods used were as follows:

- Soil pH - EPA Method 9045;
- Soil phosphorous - EPA Method 365.3 Modified;
- Nitrate - EPA Method 350.2 Modified;
- Nitrite - EPA Method 353.2 Modified;
- Ammonia - Modified EPA Method 350.2 - Nesslers;
- Soil moisture - Standard Method 2540-G;
- TPH - EPA Method 9071.

In addition, the soils were periodically monitored for microbial population and respiration.

BIOLOGICAL CONTROL MONITORING REQUIREMENTS

The treatability study concluded that there were indigenous microbes on-site which were capable of degrading the contaminants of concern. In order to accelerate the growth of microorganisms, site conditions were altered to those determined optimal during the treatability study. The following is a discussion of the treatment cell chemical and biological characteristics.

pH

The initial pH characteristics of the soil were slightly basic. The pH at the start of remediation averaged 8.2. As the soils continued to be amended, the pH decreased to 7.25 which is more acceptable for bioremediation.

Nutrient Concentration

The treatability study concluded that the soils were depleted in such essential nutrients as nitrogen and phosphorous. Ammonia as nitrogen, nitrite and nitrate as well as phosphate were analyzed routinely throughout treatment. Phosphate averaged 75 mg/kg at the start of the treatment program. Levels increased throughout the study until the end of the treatment with a final concentration of phosphorous of more than 200 mg/kg. Nitrate concentrations were below detection limits at the start of the treatment program. Concentration continued to increase throughout the treatment program and at the end of the remediation program was 15 mg/kg.

MICROBIAL POPULATION

The soils were also analyzed to determine microbial growth using the standard plate count method, which is a direct quantitative measurement of viable aerobic and facultative anaerobic bacteria present in the soil. The method used to quantify the bacterial population in the soil was adapted from the method as outlined in EPA Microbiological Methods for Monitoring the Environment (EPA 600/8-78-017). The microbial population at the start of treatment averaged 10^7 colony forming units per gram (cfu/g) and increased to more than 10^{15} cfu/g at the completion of the remediation program. At microbial concentrations of more than 10^6 cfu/g, contaminant reduction in

soil has been documented to be a function of the activity of the microbial population.[1] The growth in the population of microbes indicated that the addition of the nutrients and other factors were also degrading the contaminants of concern.

[1] Bianchini, Porter, Pugisaki - Detection of Optimal Toxicant Loads for Biological Closure of a Hazardous Waste Site, Aquatic Toxicology Annual Symposium, 1986.

SECTION 5.0 - DISCUSSION

INORGANIC COMPOSITE SOILS

The key to accelerating the natural biodegradation process was to provide a sufficient concentration of nutrients and minerals for the indigenous bacteria. The inorganic material must be readily available to the bacteria present in the soil. Nitrogen, in all forms, as well as phosphorous were the most critical nutrients lacking in the soils at DTP. This was determined in the treatability study and confirmed during the treatment of the contaminated soils.

The initial sampling confirmed that the soils in the treatment cell were lacking the essential nutrients needed to accelerate the natural biodegradation process. As treatment progressed, the soils increased in nitrate and phosphorous. As the bioreactor system continued to feed the treatment cell, the levels of nutrients gradually increased until nutrients were no longer the limiting factor in the bioremediation of these soils.

STANDARD PLATE COUNT

To evaluate biological activity, total heterotrophic organisms in the treatment cell were enumerated. Samples were plated onto mineral media containing specific hydrocarbons which were the sole source of carbon. The soils were plated on substrate specific hydrocarbon to identify and study the specific organisms. The microbial population in the treatment cell increased over time due to a number of factors. The first factor included the continuous nutrient feed supply from the bioreactor. The second factor affecting microbial cell counts was the continuous feed of microbe laden water from the bioreactor. As the system continued to operate the microbial population was monitored to ensure that the population continued to increase. This data used in conjunction with

the TPH results indicated the rate at which the microbes were remediating the soils in the treatment cell.

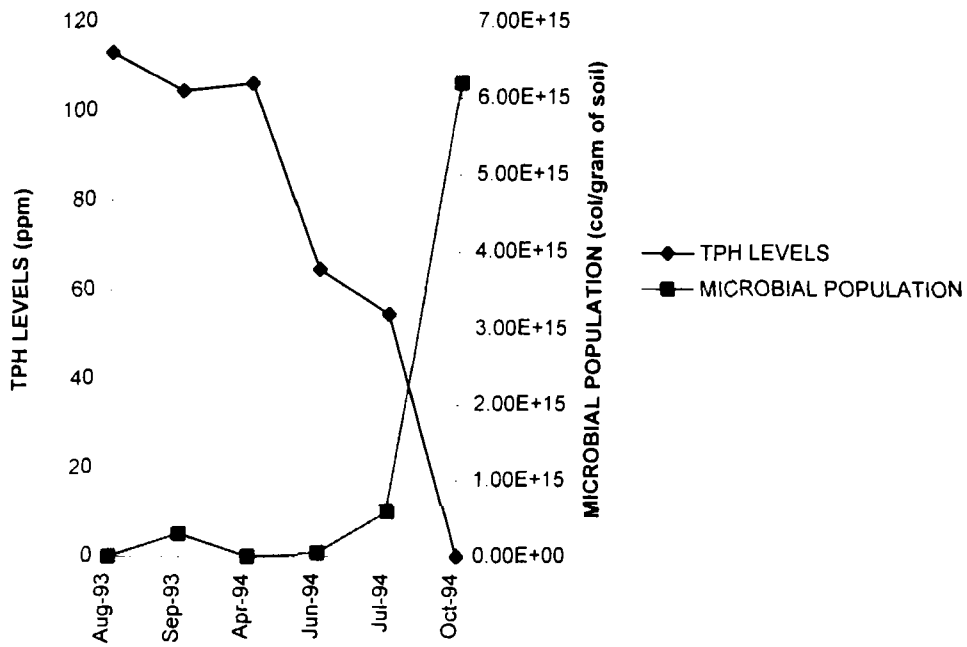
TPH Monitoring

Soils in the treatment cell were analyzed periodically for TPH concentration using Method 9081. The soil TPH concentration decreased on average from 113 ppm to <10 ppm. Over the fourteen (14) month period that the bioreactor operated, TPH values decreased overall by 99%, due to the continuous feed of nutrient enriched, microbe laden water to the bacteria present in the soil. The results indicate a high initial contaminant reduction followed by a period of reduced rate as the concentrations of TPH were reduced and as the microbial community changed.

SECTION 6.0 - CONCLUSIONS

After approximately eight weeks of operation, microbial activity at the site began to increase. The analyses indicated the population of hydrocarbon degrading microbes increased throughout the treatment process. Environmental conditions of the soils were greatly improved over those found initially which allowed the indigenous microbes to function at optimal levels.

The graph below illustrates the correlation between decreasing TPH concentrations and increasing microbial numbers throughout the treatment process. The graph illustrates the effectiveness of the existing microbial population to degrade the contaminants of concern.



6-Sep-93

Doug Orf
Acustar
1600 Webster Street
Dayton, OH 45404

PROJECT NUMBER: 6001
PROJECT : CHRYSLER - ACUSTAR

ANALYSIS/ METHOD	RESULTS	UNITS	DATE ANALYZED	MDL
SAMPLE CODE: Biotreatment Cell Composite				
DATE SAMPLE COLLECTED:8/19/93				
TPH/EPA 9071	113.0	mg/L	24-Aug-93	10.0

Christopher J. Candela
Environmental Scientist

All analyses are performed in accordance with those outlined in EPA Methods for Chemical Analysis of Water and Wastes and in Standard Methods for the Examination of Water and Waste Water, 17th edition, unless otherwise noted.

18-Oct-93

Doug Orf
Acustar
1600 Webster Street
Dayton, OH 45404

PROJECT NUMBER: 6001
PROJECT : CHRYSLER - ACUSTAR

ANALYSIS/ METHOD	RESULTS	UNITS	DATE ANALYZED	MDL
SAMPLE CODE: Biotreatment Cell Sample D-1 **DATE SAMPLE COLLECTED:9/30/93**				
TPH/EPA 9071	115.0	mg/L	12-Oct-93	10.0
SAMPLE CODE: Biotreatment Cell Sample D-2 **DATE SAMPLE COLLECTED:9/30/93**				
TPH/EPA 9071	98.0	mg/L	12-Oct-93	10.0
SAMPLE CODE: Biotreatment Cell Sample D-3 **DATE SAMPLE COLLECTED:9/30/93**				
TPH/EPA 9071	100.0	mg/L	12-Oct-93	10.0

SAMPLE CODE: Biotreatment Cell Sample D-4

DATE SAMPLE COLLECTED:9/30/93

TPH/EPA 9071	105.0	mg/L	12-Oct-93	10.0

Christopher J. Candela
Environmental Scientist

All analyses are performed in accordance with those outlined in EPA Methods for Chemical Analysis of Water and Wastes and in Standard Methods for the Examination of Water and Waste Water, 17th edition, unless otherwise noted.

28-Apr-94

Doug Orf
Acustar
1600 Webster Street
Dayton, OH 45404

PROJECT NUMBER: 6001
PROJECT : CHRYSLER - ACUSTAR

ANALYSIS/ METHOD	RESULTS	UNITS	DATE ANALYZED	MDL
SAMPLE CODE: Biotreatment Cell Sample D-1				
DATE SAMPLE COLLECTED:4/7/94				
TPH/EPA 9071	115.0	mg/L	18-Apr-94	10.0
SAMPLE CODE: Biotreatment Cell Sample D-2				
DATE SAMPLE COLLECTED:4/7/94				
TPH/EPA 9071	100.0	mg/L	18-Apr-94	10.0
SAMPLE CODE: Biotreatment Cell Sample D-3				
DATE SAMPLE COLLECTED:4/7/94				
TPH/EPA 9071	105.0	mg/L	18-Apr-94	10.0

SAMPLE CODE: Biotreatment Cell Sample D-4
DATE SAMPLE COLLECTED:4/7/94

TPH/EPA 9071	105.0	mg/L	18-Apr-94	10.0

Christopher J. Candela
Environmental Scientist

All analyses are performed in accordance with those outlined in EPA Methods for Chemical Analysis of Water and Wastes and in Standard Methods for the Examination of Water and Waste Water, 17th edition, unless otherwise noted.

28-Jul-94

Doug Orf
Acustar
1600 Webster Street
Dayton, OH 45404

PROJECT NUMBER: 6001
PROJECT : CHRYSLER - ACUSTAR

ANALYSIS/ METHOD	RESULTS	UNITS	DATE ANALYZED	MDL
SAMPLE CODE: Biotreatment Cell Sample D-1				
DATE SAMPLE COLLECTED:6/12/94				
TPH/EPA 9071	28.3	mg/L	27-Jun-94	10.0
SAMPLE CODE: Biotreatment Cell Sample D-2				
DATE SAMPLE COLLECTED:6/12/94				
TPH/EPA 9071	113.4	mg/L	27-Jun-94	10.0
SAMPLE CODE: Biotreatment Cell Sample D-3				
DATE SAMPLE COLLECTED:6/12/94				
TPH/EPA 9071	85.0	mg/L	27-Jun-94	10.0

SAMPLE CODE: Biotreatment Cell Sample D-4
DATE SAMPLE COLLECTED:6/12/94

TPH/EPA 9071	56.7	mg/L	27-Jun-94	10.0

Christopher J. Candela
Environmental Scientist

All analyses are performed in accordance with those outlined in EPA Methods for Chemical Analysis of Water and Wastes and in Standard Methods for the Examination of Water and Waste Water, 17th edition, unless otherwise noted.

3-Aug-94

Doug Orf
Acustar
1600 Webster Street
Dayton, OH 45404

PROJECT NUMBER: 6001
PROJECT : CHRYSLER - ACUSTAR

ANALYSIS/ METHOD	RESULTS	UNITS	DATE ANALYZED	MDL
SAMPLE CODE: Biotreatment Cell Sample D-1				
DATE SAMPLE COLLECTED:7/19/94				
TPH/EPA 9071	20.0	mg/L	27-Jul-94	10.0
SAMPLE CODE: Biotreatment Cell Sample D-2				
DATE SAMPLE COLLECTED:7/19/94				
TPH/EPA 9071	95.6	mg/L	27-Jul-94	10.0
SAMPLE CODE: Biotreatment Cell Sample D-3				
DATE SAMPLE COLLECTED:7/19/94				
TPH/EPA 9071	70.0	mg/L	27-Jul-94	10.0

SAMPLE CODE: Biotreatment Cell Sample D-4
DATE SAMPLE COLLECTED:7/19/94

TPH/EPA 9071	32.8	mg/L	27-Jul-94	10.0

Christopher J. Candela
Environmental Scientist

All analyses are performed in accordance with those outlined in EPA Methods for Chemical Analysis of Water and Wastes and in Standard Methods for the Examination of Water and Waste Water, 17th edition, unless otherwise noted.

3-Nov-94

Doug Orf
Acustar
1600 Webster Street
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PROJECT NUMBER: 6001
PROJECT : CHRYSLER - ACUSTAR

ANALYSIS/ METHOD	RESULTS	UNITS	DATE ANALYZED	MDL
SAMPLE CODE: Biotreatment Cell Sample D-1				
DATE SAMPLE COLLECTED:10/21/94				
TPH/EPA 9071	ND	mg/L	25-Oct-94	10.0
SAMPLE CODE: Biotreatment Cell Sample D-2				
DATE SAMPLE COLLECTED:10/21/94				
TPH/EPA 9071	ND	mg/L	25-Oct-94	10.0
SAMPLE CODE: Biotreatment Cell Sample D-3				
DATE SAMPLE COLLECTED:10/21/94				
TPH/EPA 9071	ND	mg/L	25-Oct-94	10.0

SAMPLE CODE: Biotreatment Cell Sample D-4
DATE SAMPLE COLLECTED:10/21/94

TPH/EPA 9071	ND	mg/L	25-Oct-94	10.0

*** Sample splits sent to third party laboratory for analysis verification. ***

Christopher J. Candela
Environmental Scientist

All analyses are performed in accordance with those outlined in EPA Methods for Chemical Analysis of Water and Wastes and in Standard Methods for the Examination of Water and Waste Water, 17th edition, unless otherwise noted.

From: Medlab Environmental Testing, Inc.
212 Cheery Lane
New Castle, DE 19720

February 27, 1995

To: Clean Technologies
2700 Capitol Trail
Newark, DE 19711

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. AA08658 Client Code: CLEAN-01
Purchase order number: 350 SAMPLE LOCATION: [illegible]
SAMPLE ID: [redacted]
Sample collection date: 10/14/94 Time: 08:30
Lab submittal date: 10/17/94 Time: 13:10
Job Name: Chrysler Twinsburg Telephone Number: 999-0924
FAX Number: 999-0928

Parameter	Result	Units	MDL
BTEX by GC/PID	see below	ug/kg	
Diesel Range Organics	<10	mg/kg	10

Data for BTEX by GC/PID ug/kg:

Component Name	Result	Component MDL
Benzene	5 U	5
Toluene	5 U	5
Ethyl Benzene	5 U	5
m&p-Xylene	10 U	10
o-Xylene	5 U	5

If there are any questions regarding this data, please call.

John R Hawkins for

Michael Shmookler, Ph.D.
Laboratory Director

ACUSTAR

Inter Company Correspondence

Date

July 19, 1990

To:

M. W. Grice	General Counsel's Office	Chrysler Center	416-14-05

From:

W. F. Smith	General Manager - Chassis/Thermal Systems	Acustar	404-03-01

Subject: MAXWELL COMPLEX DEMOLITION - DAYTON PLANT

Dayton Plant personnel accumulated the attached information following our meeting of June 25, 1990.

The information has been reviewed by L. Blair and Julie Kozlowski of our operation and is being forwarded to you to assist in deciding the necessity for further action, such as an environmental impact study.

We appreciate your advice and assistance in this matter.

W. F. Smith

Attach.

cc: W. C. Achinger (W/O Attach.)
L. L. Blair " "
J. A. Kozlowski " "
G. D. McCurley " "

Inter Company Correspondence

Telephone	Date
X2307	7/3/90

To — Name & Department			CIMS Number
G. D. McCurley	Plant Manager	Acustar/Dayton	478-00-00
From — Name & Department			**CIMS Number**
R. G. Beck	Manufacturing Engineering	Acustar/Dayton	478-05-00

Subject: DEMOLITION OF MAXWELL COMPLEX

Attached is the information requested recently by Acustar Staff, pertaining to the demolition of the Maxwell Complex:

1) Layout/Plot Plan of area to be demolished - D size drawing attached (PE-3655).

2) Engineering Company contracted for demolition specifications:

Lockwood, Jones and Beals, Inc.
1563 East Dorothy Lane
Kettering, Ohio 45429
(513) 293-0033

Attn: Harry Misel

3) Asbestos removal plan for Maxwell Complex (to be part of demolition contract):

A) Identify on plant layouts all asbestos wrapped piping and other asbestos that must be removed.

B) Identify by lab testing the type of asbestos to be removed.

C) Removal by licensed removal company; disposal at certified dump sites.

D) Roof felts can be removed as part of demolition without segregation; disposal at certified sites.

E) Vinyl asbestos floor tile can be removed as part of demolition without segregation; disposal at certified sites.

4) Demolition Timetable - Attachment "A" is Lockwood, Jones and Beals' demolition specification schedule, indicating that bids would be due 8/9/90. It is planned that a purchase order would be placed by 8/15/90, and demolition completed by 11/21/90.

5) Recent Soil/Water Testing. The only known analytical testing on underground water and fluids are as follows:

A) Tests on Wells #2 and #3, from 11/28/89 on; results attached.

B) Discovery and testing of waste oil/chloronated solvents underground in Building 40B. Acustar Staff has full reports; Summary copy attached. Additional sampling tests attached.

C) Samples were drawn from inactive sumps in the Maxwell Complex on 7/3/90; results anticipated by 7/20/90. All sumps to be removed are noted on the attached sump location plan. Two inactive sumps are adjacent to an old trichloroethane degreasing operation, and are partially or totally filled with fluid. We have noted these on the plot plan in yellow, as "suspicious". All others are marked in blue, as apparently okay.

6) Operations performed in Maxwell Complex in the past - Historical drawings, layouts, documentation, etc., on the old buildings is practically non-existant. Attached, however, are copies of layouts still on file here; and are noted for old painting/cleaning operations:

A) Plant Engineering - PE-950, dated 7/20/66.

B) Airtemp - E-333, dated 3/24/48.

7) Two retirees were contacted by telephone for their recollections regarding production in the Maxwell Complex.

A) Frank Beniger - Retired 1971. His earliest recollections go back to 1936. He remembers that furnaces were made there, with a press room, shear department, spot welding, paint line (with cleaning) and assembly. He believes that machining of compressors for commercial units also started there. During the war years, production was all defense oriented, and consisted of furnaces/stoves for the army, gun parts and bomb shackles.

B) Bob Hall - Retired 1976. His recollections from 1943 on, consisted of a machine shop, furnace (heating) assembly; soldering/welding, a continuous paint line, with in-process cleaning.

In summary, there has been a variety of manufacturing operations performed in the Maxwell complex over the years. These operations included light machining, welding, soldering, spot welding, cleaning, painting and assembly.

R. G. Beck
Manufacturing Engineering Manager

Attachments

reb/004/RB

cc: W. H. Drees

O'BRIEN & GERE

December 8, 1987

OVERNIGHT DELIVERY

Mr. George Higgs
CIMS 482-05-00
Chrysler Motors Corporation
1600 Webster Street
Dayton, OH 45401

Re: Building 40B

File: 3040.064 #2

Dear Mr. Higgs:

Enclosed for your review and use is our summary report regarding the observed contamination below the floor of your manufacturing building No. 40B. The report documents the information collected by our hydrogeologist and briefly outlines a work plan for further investigation into the source of the problem and possible impacts.

However, as we discussed, Chrysler may at this time decide to limit activities to the immediate vicinity of the observed contamination. By removing collected liquid from the excavated hole, it might be possible to contain the contamination within a highly localized area. The overall extent and impact of the problem, however, will remain unknown.

It is our understanding that Chrysler corporate legal staff will render an opinion regarding the need to report to the Ohio Environmental Protection Agency. If you have any questions or comments, please call me or Deborah Wright of our office.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.

James R. Heckathorne, P.E.
Managing Engineer

JRH/meh:41:9

cc: Mr. Donald J. Remboski - Chrysler Motors
Ms. Deborah Y. Wright - O'Brien & Gere

MEMO: To Files
FROM: D.Y. Wright
RE: Site Inspection
Chrysler Dayton Plant
FILE: 3040.064
DATE: December 7, 1987

CC: J.T. Mickam
G.A. Swenson
J.R. Heckathorne

On Monday, November 30, 1987 and Tuesday, December 1, 1987 I visited the Chrysler Plant in Dayton, Ohio for the purpose of developing a work plan to investigate the source of the Waste Oil and 1,1,1 - TCA found beneath the floor in an area located in Building 40b. I met with George Higgs, the engineer in charge of operations. Also present was Vern Allen who is in charge of the waste disposal. We discussed the situation in general and then inspected the area. The results of the discussion and inspection follows.

Apparently while a contractor was installing some guard posts within the plant a hole was cut in the concrete flooring. During the cutting procedure, oil and water was observed oozing out of the cuts. Beneath the concrete was a 6 inch layer of till which covered a thick reinforced concrete slab apparently used at one time for the base of a large press. The size of this slab is presently unknown. Oil/water was observed flowing into the hole through the fill material predominantly from the northern side. Work was then discontinued, and a sample of the oil and water was collected and sent to a local laboratory for analysis. The results of the analyses are attached. In general, the oil contained mixed alkanes at a concentration of 42,700 mg/kg. The water layer contained 10,900 ug/l of 1,1,1-trichloroethane, 288 ug/l methyl ethyl ketone and a number of other chlorinated organics. The oil and water in the hole was then removed and placed in a waste oil area for later disposal. The following day the hole was filled to just below the base of the concrete floor with the water and approximately 1 inch of oil. This was the condition which I observed on November 30, 1987.

During the inspection, the plant layout was discussed. It appears that the plant was originally constructed in the 1920's. Additions and modifications have been completed over the years and are still being completed from time to time. Some of the older structures encountered during some of the work included reinforced concrete pads and concrete pits which used to hold hydraulic oil for some of the machinery. Several areas in the vicinity of the new hole have been excavated recently for the purpose of installing a new drainage system. No water or oil was found in any of these areas.

Some of the structures known to have existed in the area of the discovery include a degreasing station located 50 feet south which was an above-grade facility and a subgrade waste oil sump located 20 feet southwest which was constructed of concrete and recently filled in.

Information obtained during the site inspection included the following:

- Lab results of the analyses completed on the samples collected of the water/oil (attached).

- Records of the three supply wells located on the property - information is limited. These wells were installed by either Layne Ohio or GM Baker & Son (data is attached).

- A facility map (copy attached).

- Name of the Engineering firm who was in charge of most of the construction work at the facility - Albert Kahn from Detroit Michigan (Job #1970-C). They may be able to provide information regarding some of the older structures in the facility as no such records can be found at the plant.

- Bibliography of hydrogeologic reports pertaining to the area - Obtained from Wright State (attached).

Based on information obtained during the site visit, it is suspected that the water/oil found in the new hole may be a localized occurrence and may have originated from a nearby subgrade pit of unknown location. This premise is supported by the following observations which have been made:

1) The point of discovery is underlain by a concrete slab which may serve as a barrier to vertical migration.

2) Other excavation in the vicinity have not encountered liquids.

Whether or not these liquids have impacted the ground water system has not been determined. Based on discussions with George Higgs and Bill Drees, it is the desire of Chrysler to find and remove the source of the liquids.

On Tuesday we briefly discussed an approach which could be taken to investigate the problem. I outlined a basic approach which I felt would address the problem as follows:

I. Background Information Review

- Obtain and review old plant maps
- Interview older employees to determine if pit areas are present
- Obtain and review information pertaining to the local hydrogeology - particularly the local aquifers and nearby ground water users in the area.

II. Source Investigation - to identify extent and location of source of water/oil pool

- Complete additional holes or trenches in area.
- Analysis of soils as necessary.

III. Ground Water Investigation - to determine whether the ground water has been impacted by the water/oil

- 3 monitoring wells outside building - North, South and East of area.
- 1 monitoring well if possible inside of building west of the area.
- Sampling and analysis of monitoring wells and three existing supply wells.

IV. Letter Report

- Determination of whether impacts to ground water has occurred.

The primary task at this point would be to determine the source and extent of the pool of water/oil. We discussed sampling the three supply wells on the property, but they indicated that the wells were only used to supply cooling water to the plant and did not feel it was necessary to have analyses completed. Additionally, we discussed installing ground water monitoring wells just the outside of the building. Since the problem at hand appears to be localized, Bill and George felt that the only effort necessary to be completed at this time would be to determine the extent and source of the water/oil found in the hole.

Because the reported findings and observations suggest that the problem may be localized, a logical first step might be to pump the contents of the excavated hole to drums for disposal as waste. Further observations of the rate and volume of recharge, if any, may indicate that the immediate problem can be controlled in this manner. At that point, Chrysler could make a decision regarding the need to complete the investigations outlined above.

DYW:emr/26.4
Attachments

PAGE 3
RECEIVED: 11/23/87

HOWARD LABS INC REPORT
Results by Sample

LAB # 87-11-A27

SAMPLE ID #11-23-87-2

FRACTION 02A TEST CODE GCMS NAME GCMS Scan
Date & Time Collected 11/23/87 Category

DATA FILE E0356
DATE INJECTED 11/24/87

ANALYST HMC

VERIFIED BY DLH

oil

COMPOUND	RESULT	UNITS
Mixed alkanes	42,700.0	mg/Kg
No other compounds detected with a detection limit of 44.0 mg/Kg.		
NOTE: This sample was taken from the oil layer.		

Hole IN CONC Rely

The following are inter-laboratory QA/QC results for EPA Method 625/1625.

COMPOUND	RESULT	CODE
nitrobenzene-d5	68.8 %	S1B
2-fluorobiphenyl	77.2 %	S2B
terphenyl-d14	71.5 %	S3B
phenol-d5	92.6 %	S1A
2-fluorophenol	101.0 %	S2A
2,4,6-tribromophenol	96.8 %	S3A

CODES - Surrogate compounds for QC check.

PAGE 4 HOWARD LABS INC REPORT LAB # 87-11-A27
RECEIVED: 11/23/87
Results by Sample

SAMPLE ID #11-23-87-2 FRACTION 02A TEST CODE VOAMSC NAME GC/MS SCAN TOTAL VOLATILES
Date & Time Collected 11/23/87 Category

DATA FILE B1086
DATE INJECTED 11/24/87 ANALYST CMH VERIFIED BY DLH

Hole IN CONCRETE

COMPOUND	RESULT	UNITS
1,1-Dichloroethene	135.0	ug/L
1,1-Dichloroethane	2,800.0	ug/L
1,1,1-Trichloroethane	10,900.0	ug/L
Trichloroethene	308.0	ug/L
1,1,2-Trichloroethane	43.8	ug/L
Tetrachloroethene	286.0	ug/L
1,2-Dichlorobenzene	14.3	ug/L
Cis-1,2-dichloroethene	2,470.0	ug/L
Methyl Ethyl Ketone	288.0	ug/L
No other volatile compounds		
detected with a detection		
level of < 12.5 ug/L.		

The following are inter-laboratory QA/QC results for EPA Method 624/1624.

COMPOUND	RESULT	CODE
1,2-dichloroethane-d4	65.0 %	S1V
toluene-d6	91.4 %	S2V
bromofluorobenzene	120.0 %	S3V

CODE SV - Surrogate compound for QC check.

POST Hole Bldg 60B

PAGE 2 HOWARD LABS INC REPORT LAB # 88-03-D42

RECEIVED: 03/24/88

Resylts by Sample

SAMPLE ID 803-24-88-01 FRACTION QA TEST CODE VOAMSC NAME GC/MS SCAN TOTAL VO

Data & Time Collected not specified Category

DATA FILE 27123 VERIFIED BY

DATE ANALYZED 03/04/

ANALYST CMH

COMPOUND	RESULT	UNITS
1,2-Dichloroethen	4.3	ug/Kg
1,2-Dichloroethen	20.0	ug/Kg
Trichloroethene	21.4	ug/Kg
Tetrachloroethene	79.0	ug/Kg
Chlorobenzene	13.3	ug/Kg
Tetrachloroethen	24.8	ug/Kg
Ethyl benzene	178.0	ug/Kg
Xylenes	88.0	ug/Kg

Method detecti
ug/Kg.

Laboratory QA/ Method 624/1624.

HOWARD LABS INC

DAYTON, OH

COMPOUND	RESULT	CODE
1,2-Dichloroethen	82.2 %	B1V
Toluene-D8	83.0 %	B2V
Bromofluorobenzene	91.1 %	B3V

CODE BV = Surrogate compound for GC check.

ENVIRONMENTAL SERVICES

2

HOWARD LABS INC REPORT LAB # 89-04-419

Post Hole BH-408

IVED: 04/10/89

Results by Sample

PLE ID #04-10-89-01 FRACTION 01A TEST CODE VOAMSC NAME GC/MS SCAN TOTAL VOLATILES

Date & Time Collected 04/10/89 Category

DATA FILE B9568B9602

TE INJECTED 04/23/89 ANALYST KH VERIFIED BY KQM

COMPOUND	RESULT	UNITS	
Chloroethene	25.5	ug/L	
Chloroethane	3,430.0	ug/L	3.43 ppm
1,1-Dichloroethene	19.9	ug/L	
1,1-Dichloroethane	1,360.0	ug/L	1.36 ppm
cis-1,2-Dichloroethene	1,230.0	ug/L	1.23 ppm
1,1,1-Trichloroethane	41.2	ug/L	0.041 ppm
Trichloroethene	73.3	ug/L	
Tetrachloroethene	7.8	ug/L	
Acetone	3,970.0	ug/L	3.97 ppm
MEK	337.0	ug/L	0.337 ppm
Method Detection Limit	< 2.5	ug/L	

The following are inter-laboratory QA/QC results for EPA Method 624/1624.

COMPOUND	RESULT	CODE
1,2-dichloroethane-d4	107.0 %	S1V
toluene-d6	95.4 %	S2V
bromofluorobenzene	98.0 %	S3V

CODE SV - Surrogate compound for QC check.

HOWARD LABS INC REPORT LAB # 89-09-D63

VED: 09/27/89

Results by Sample

AMPLE ID Hole in Floor by Stairway FRACTION 01A TEST CODE VOAMSC NAME GC/MS SCAN TOTAL VOLATILES

Date & Time Collected 09/27/89 Category

DATA FILE E5203

DATE INJECTED 10/11/89 ANALYST KH VERIFIED BY KQM

Post Hole Bld 40B

COMPOUND	RESULT	UNITS	
Chloroethane	85.9	ug/L	= 0.0859 ppm
1,2-Dichloroethane	132.0	ug/L	= 0.132 ppm
cis-1,2-Dichloroethene	65.1	ug/L	= 0.0651 ppm
1,1,1-Trichloroethane	2.60	ug/L	= 0.0026 ppm
Trichloroethene	8.35	ug/L	= 0.0085 ppm
Method Detection Limit	<2.50	ug/L	

The following are inter-laboratory QA/QC results for SW-846 Method 8240.

COMPOUND	RESULT	CODE
1,2-dichloroethane-d4	77.0 %	S1V
toluene-d6	93.0 %	S2V
bromofluorobenzene	109.0 %	S3V

CODE SV - Surrogate compound for QC check.

NET ENVIRONMENTAL TESTING, INC.
[illegible], OH 45[illegible]
TEL (513) 294-6856
FAX (513) 294-7816

Doug
Lab reports
3-9-90
C J Lion

Formerly: Howard Laboratories, Inc.

ANALYTICAL REPORT

MAR 09 199[illegible]

03-08-90

CHRYSLER CORPORATION
1600 Webster Street
Dayton OH 45404

Sample No.: 19162

PAGE 1

POST HOLE BLDG. 40-B

Sample Description: 2-20-90-01 Hole by Stairway

Date Taken: 02-20-90

Date Received: 02-20-90

VOLATILE COMPOUNDS

METHOD 8240

Acetone	2290.	ug/L
Benzene	<2.5	ug/L
Bromodichloromethane	<2.5	ug/L
Bromoform	<2.5	ug/L
Bromomethane	<2.5	ug/L
2-Butanone	540.	ug/L
Carbon disulfide	<2.5	ug/L
Carbon tetrachloride	<2.5	ug/L
Chlorobenzene	<2.5	ug/L
Chloroethane	238.	ug/L
Chloroform	<2.5	ug/L
Chloromethane	<2.5	ug/L
2-Chloroethyl vinyl ether	<150.	ug/L
Dibromochloromethane	<2.5	ug/L
1,1-Dichloroethane	144.	ug/L
1,2-Dichloroethane	15.3	ug/L
1,1-Dichloroethene	5.	ug/L
1,2-Dichloroethene(Total)	191.	ug/L
1,2-Dichloropropane	<2.5	ug/L
cis-1,3-Dichloropropene	<2.5	ug/L
trans-1,3-Dichloropropene	<2.5	ug/L
Ethyl benzene	8.3	ug/L
2-Hexanone	108.	ug/L
Methylene chloride	<2.5	ug/L
4-Methyl-2-pentanone	<5.	ug/L
Styrene	<2.5	ug/L
1,1,2,2-Tetrachloroethane	<2.5	ug/L
Tetrachloroethene	7.2	ug/L
Toluene	4.9	ug/L
1,1,1-Trichloroethane	29.	ug/L
1,1,2-Trichloroethane	<2.	ug/L
Trichloroethene	23.	ug/L
Vinyl acetate	<5.	ug/L

NET NATIONAL ENVIRONMENTAL TESTING, INC.
[illegible] Dixie Drive
[illegible], OH 45439
Tel: (513) 294-6856
Fax: (513) 294-7816

Formerly: Howard Laboratories, Inc.

ANALYTICAL REPORT

03-08-90

CHRYSLER CORPORATION
1600 Webster Street
Dayton OH 45404

Sample No.: 19162

Sample Description: POST HOLE BLDG. 40-B
2-20-90-01 Hole by Stairway

Date Taken: 02-20-90

Date Received: 02-20-90

Vinyl chloride	<2.5	ug/L
Xylenes, Total	57.8	ug/L

John [illegible]
Proje[illegible]

NET NATIONAL ENVIRONMENTAL TESTING, INC.
Dayton Division
3681 South Dixie Drive
Dayton, OH 45439
Tel: (513) 294-6856
Fax: (513) 294-7816

Formerly: Howard Laboratories, Inc.

ANALYTICAL REPORT

Doug Orf
CHRYSLER CORPORATION
1600 Webster Street
Dayton OH 45404

04-02-90

Sample No.: 21022

Sample Description: 3-6-90-02 Hole in Floor Post hole Bldg 403

Date Taken: 03-06-90

Date Received: 03-06-90

VOLATILE COMPOUNDS

METHOD 8240

Acetone	212.	ug/L
Benzene	<10.	ug/L
Bromodichloromethane	<10.	ug/L
Bromoform	<10.	ug/L
Bromomethane	<10.	ug/L
2-Butanone	25.	ug/L
Carbon disulfide	<10.	ug/L
Carbon tetrachloride	<10.	ug/L
Chlorobenzene	<10.	ug/L
Chloroethane	1810.	ug/L
Chloroform	<10.	ug/L
Chloromethane	<10.	ug/L
2-Chloroethyl vinyl ether	<600.	ug/L
Dibromochloromethane	<10.	ug/L
1,1-Dichloroethane	606.	ug/L
1,2-Dichloroethane	<10.	ug/L
1,1-Dichloroethene	<10.	ug/L
1,2-Dichloroethene(Total)	348.	ug/L
1,2-Dichloropropane	<10.	ug/L
cis-1,3-Dichloropropene	<10.	ug/L
trans-1,3-Dichloropropene	<10.	ug/L
Ethyl benzene	<10.	ug/L
2-Hexanone	<20.	ug/L
Methylene chloride	<10.	ug/L
4-Methyl-2-pentanone	44.	ug/L
Styrene	<10.	ug/L
1,1,2,2-Tetrachloroethane	<10.	ug/L
Tetrachloroethene	<10.	ug/L
Toluene	<10.	ug/L
1,1,1-Trichloroethane	12.5	ug/L
1,1,2-Trichloroethane	<10.	ug/L
Trichloroethene	15.5	ug/L
Vinyl acetate	<10.	ug/L

John [illegible]
Project [illegible]

NET NATIONAL ENVIRONMENTAL TESTING, INC.

Dayton Division
3883 South Dixie Drive
Dayton, OH 45439
Tel: (513) 294-6856
Fax: (513) 294-7816

Formerly: Howard Laboratories, Inc.

ANALYTICAL REPORT

Doug Orf
CHRYSLER CORPORATION
1600 Webster Street
Dayton OH 45404

04-02-90

Sample No.: 21022

Sample Description: 3-6-90-02 Hole in Floor Post Hole Bldg 40

Date Taken: 03-06-90

Date Received: 03-06-90

Vinyl chloride	<10.	ug/L
Xylenes, Total	<10.	ug/L

John Anderson
Project Manager

Structural Recommendation Survey of Concrete at Monitoring Well Trenches

ID-22697 A00

March 15, 2005

Introduction

In early March 2005, LJB Inc. was contracted by Behr to conduct a structural recommendation survey at the Dayton Thermal Products facility located at 1600 Webster Street. The purpose of the study was to evaluate the condition of exterior concrete pavement in areas where concrete was removed for trenching and then repaired.

The study consisted of a site survey of the areas in question and a subsequent visual inspection of the surveyed areas by an LJB engineer experienced in concrete restoration. The findings of the study are described in this report.

Description

The area in question is the concrete pavement between the north and south complexes and east of the north complex at the Dayton Thermal Products facility. This area receives heavy vehicle traffic from semi-trucks, forklifts, waste haulers and various types of construction equipment. During the period between the winter of 2002 and the summer of 2003, a series of interconnecting trenches were dug to locate and connect ground water monitoring wells. The existing concrete paving had to be sawcut along the edges of the proposed piping trenches so that the concrete could be removed, the trenches could be dug and the equipment could be installed. After the monitoring well equipment had been installed, the trenches were backfilled and new concrete was placed. Drawing S-1, located in Appendix 1 of this report, shows the overall geometry of concrete replacement that was made over the monitoring well trenches.

Observations and Discussion

Several deficiencies in the replacement concrete were found during the visual field investigation. These deficiencies include cracking, spalling, settlement, overcuts and poorly prepared joints. Most of these have been noted on drawings S-2 thru S-10 located in Appendix 1 of this report. Photos of representative samples of each deficiency are located in Appendix 2.

Cracking was observed in several locations along the trench repair. Many of the cracks were probably shrinkage cracks caused by lack of a sufficient number of control joints and a lack of reinforcement. Some of the more severe cracks were probably caused by loss of sub-base support combined with vehicle loading.

Spalling was observed in both the new and existing concrete adjacent to the joints at their interface. Heavy vehicle traffic across sharp edged joints that have not been properly sealed is known to cause this type of damage. When the concrete on either side of the joint is not at the same elevation as the concrete on the other side, spall damage from vehicle traffic will be much worse. There was no sealant observed in any of the concrete joints and at several locations, the concrete elevation was not the same on either side of the joint. The lack of sealant will also allow water infiltration into the joint, and subsequent freezing can cause high pressures resulting in spalling of the adjacent concrete.

Settlement of the trench concrete was also observed at several locations. Settlements as high as 1 inches were noted in some areas. This situation is probably caused by lack of proper subgrade preparation. Proper subgrade preparation includes the proper placement and compaction of specified backfill material. The settlement is likely the principle cause of the cracking and spalling damage described above.

The original paving in the trench locations was removed by making longitudinal and transverse saw cuts. The transversal cuts were made at approximately 4-foot intervals and overcut the longitudinal cuts by 8-12 inches on each side. The overcuts were observed on both sides of the trenches for the entire length. The overcuts were not sealed or repaired, and spalling damage was observed at several of the overcut locations.

Four different kinds of joint preparations were observed at the edges of the trenches. Some of the joints were filled with an asphalt impregnated fiberboard material. These joints varied in width from inch to over 1 inch. Other joints were filled with a denser asphaltic board. These joints were approximately 3/8 inches in thickness. Other joints were filled with a hollow plastic material that was also approximately 3/8 inches thick. Other joint locations had no thickness as the new concrete was cast directly against the existing concrete. There was no sealant in any of the prepared joints.

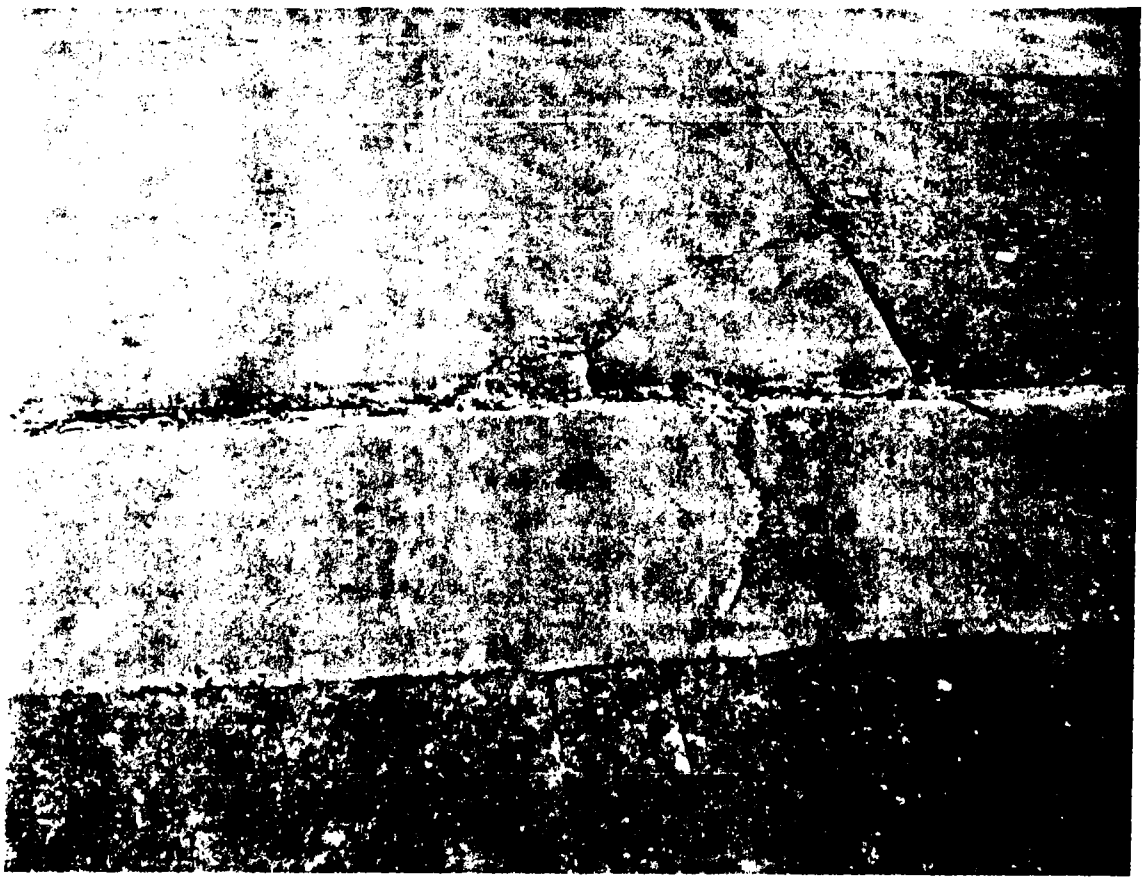
Conclusions and Recommendations

The overall condition of the trench repair concrete is fair to poor. Damage observed includes cracking, spalling and settlement. Most of the damage seems to have resulted from poor workmanship during the installation of the replacement concrete. Areas of poor workmanship observed include improper or lack of subbase preparation resulting in excessive settlement, insufficient number of control joints or lack of reinforcement resulting in cracking, overcutting into adjacent concrete and improper joint preparation resulting in spalling at overcuts and joints. It doesn't appear that any one specification was followed during the concrete installation as the placement and type of expansion joint material at the trench edges seems arbitrary.

We recommend that most of the trench concrete be removed and properly replaced. The concrete in area S-2, S-4, S-5 and the west part of S-8 are in the poorest condition and should be completely replaced. The concrete in areas S-3, the east part of S-8 and the west part of S-6 are in the best condition and may remain functional for a number of years provided their condition does not worsen. The concrete in areas S-6 and S-7 have good and bad areas, but probably should also be replaced in the near future. In all areas where the trench concrete is replaced, the concrete trenches should be widened by removing at least 10 inches of additional concrete on each side of the trench. Exactly how much additional concrete should be removed will need to be determined as part of the replacement design process. A detailed replacement specification, including subbase preparation, should also be prepared.

LJB would be happy to assist you in the process of preparing a design and specification for concrete trench replacement.

Appendix 1

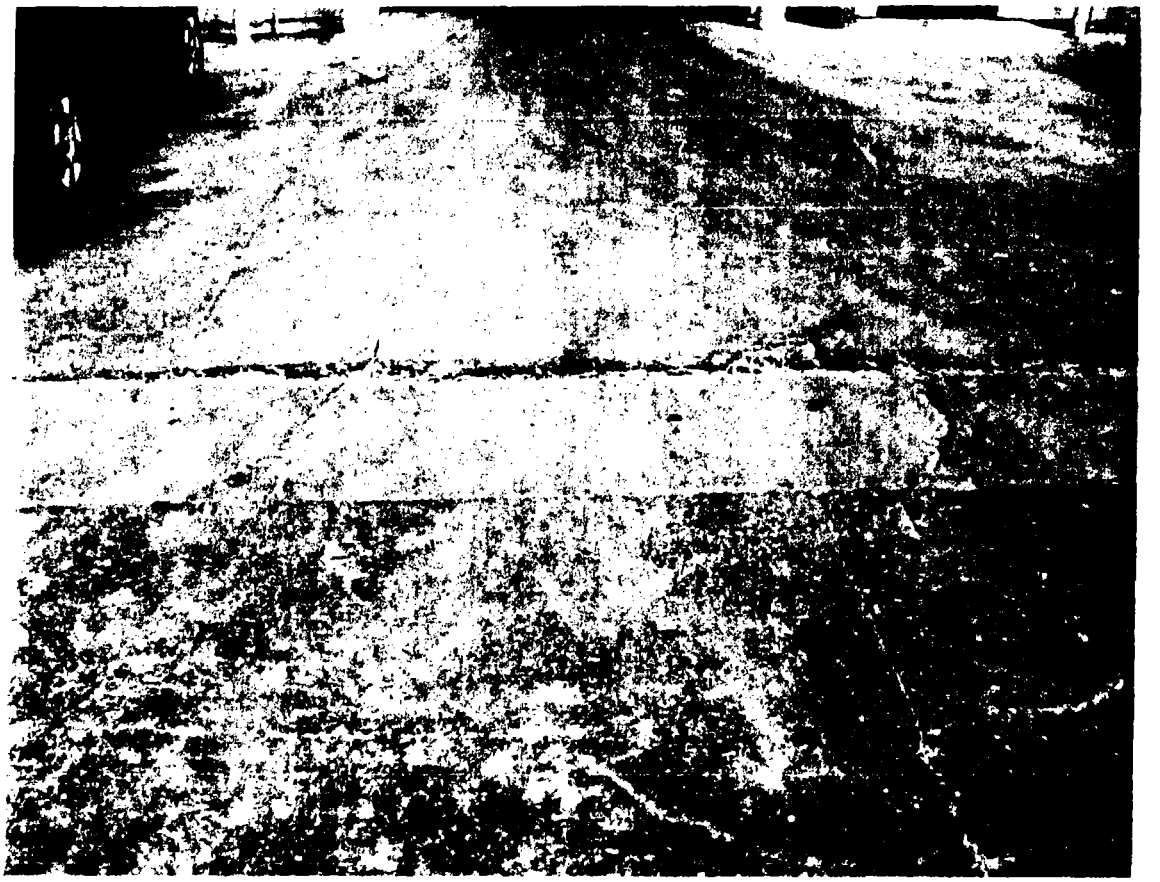


Edge damage and cracking due to settlement.

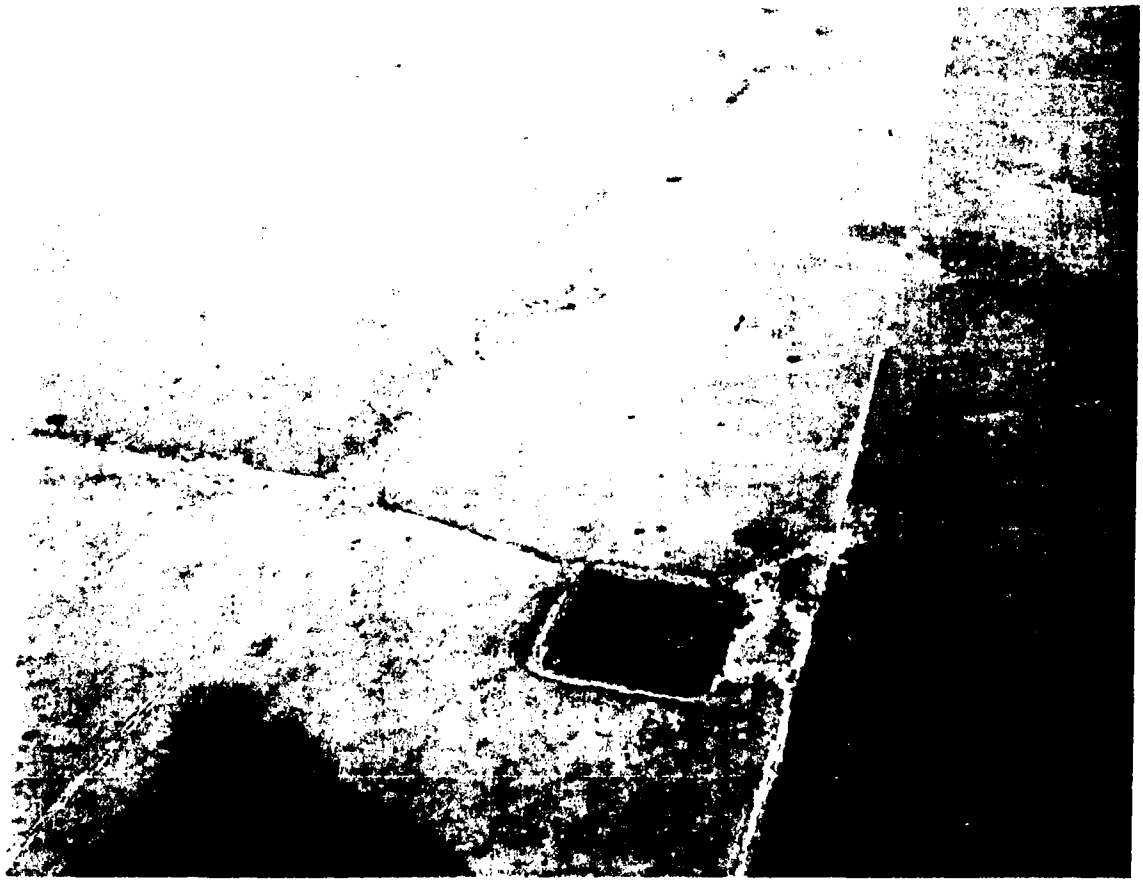
Trench settlement.

Cracking, spalling, edge damage and settlement.

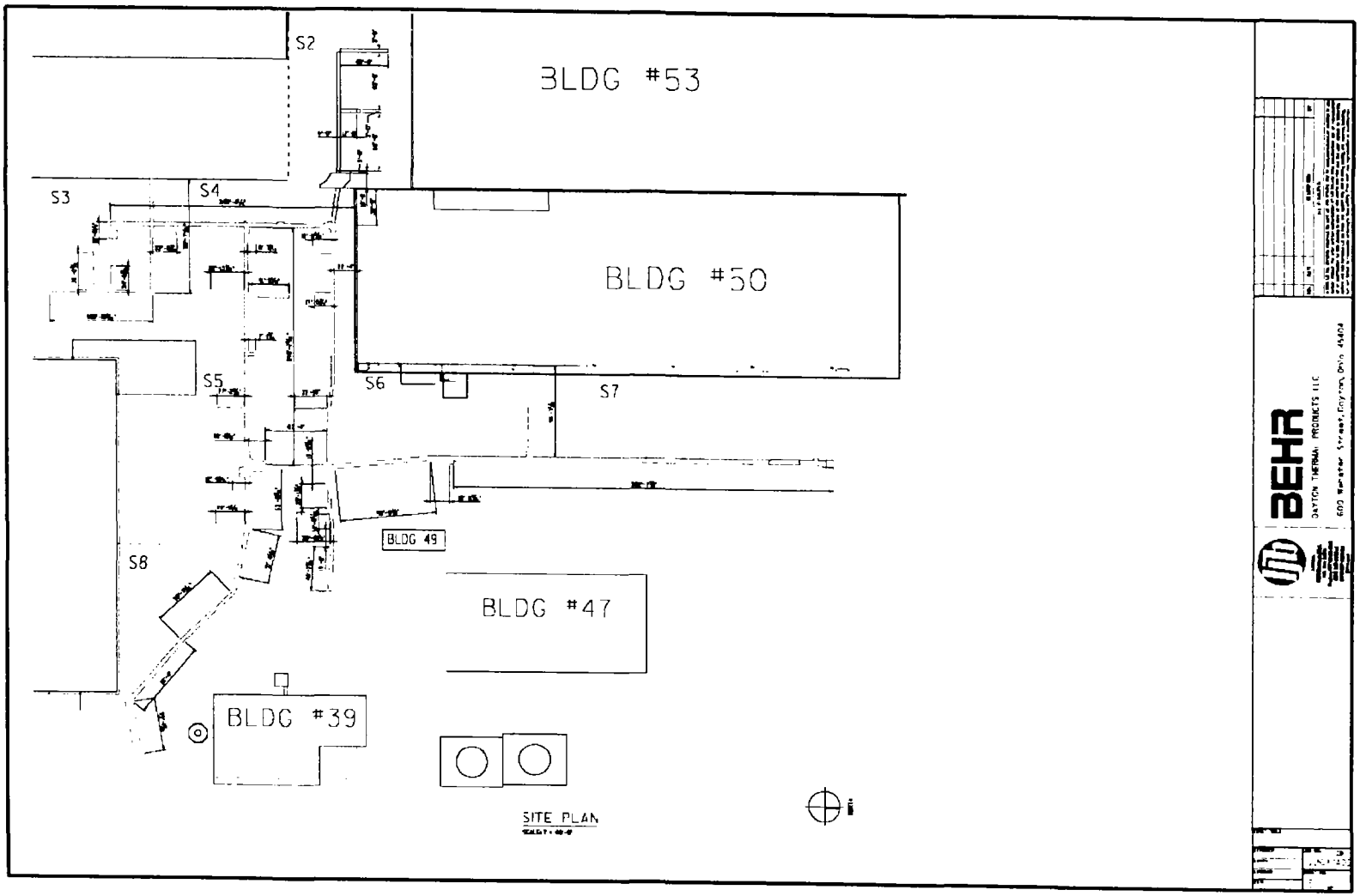
Cracking and spalling.

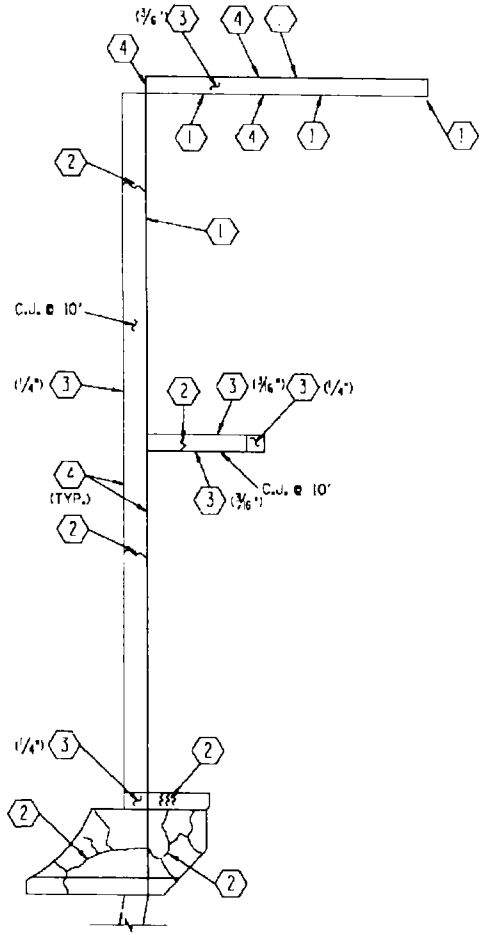


Edge damage, cracking and settlement.



Cracking and spalling at overcuts.

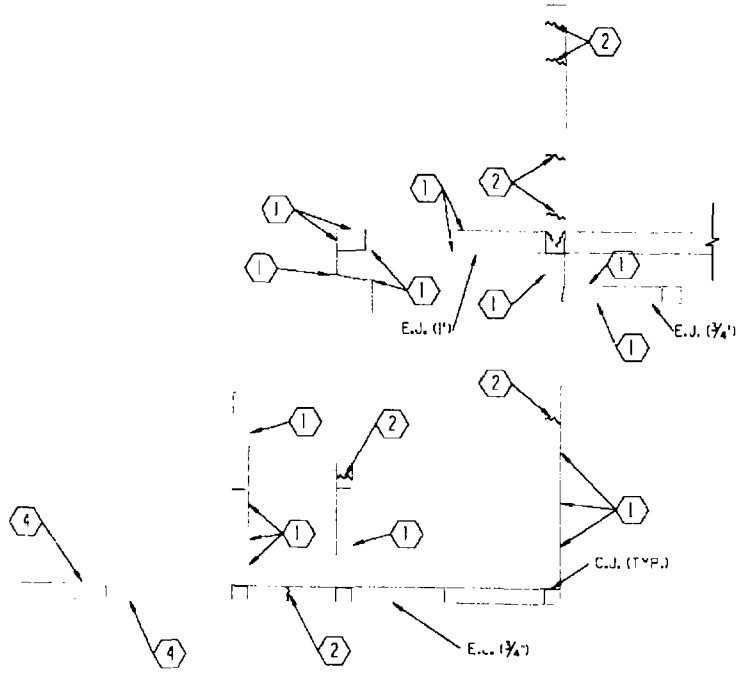

S2
BLDG #53
S3
S4
BLDG #50
S5
S6
S7
S8
BLDG 49
BLDG #47
BLDG #39
SITE PLAN
BEHR
DAYTON THERMAL PRODUCTS LLC



LEGEND	
1	SPALL
2	CRACK
3	SETTLEMENT
4	EDGE DAMAGE
C.J. (CONSTRUCTION JOINT)	
E.J. (EXPANSION JOINT)	

NOTE:
OVERCUTS @ 4'-0" O.C. EXTEND 6"-12" INTO ADJACENT CONCRETE ON BOTH SIDES OF ALL TRENCHES.

BEHR
DAYTON THERMAL PRODUCTS LLC
1600 Webster Street, Dayton, Ohio 45404



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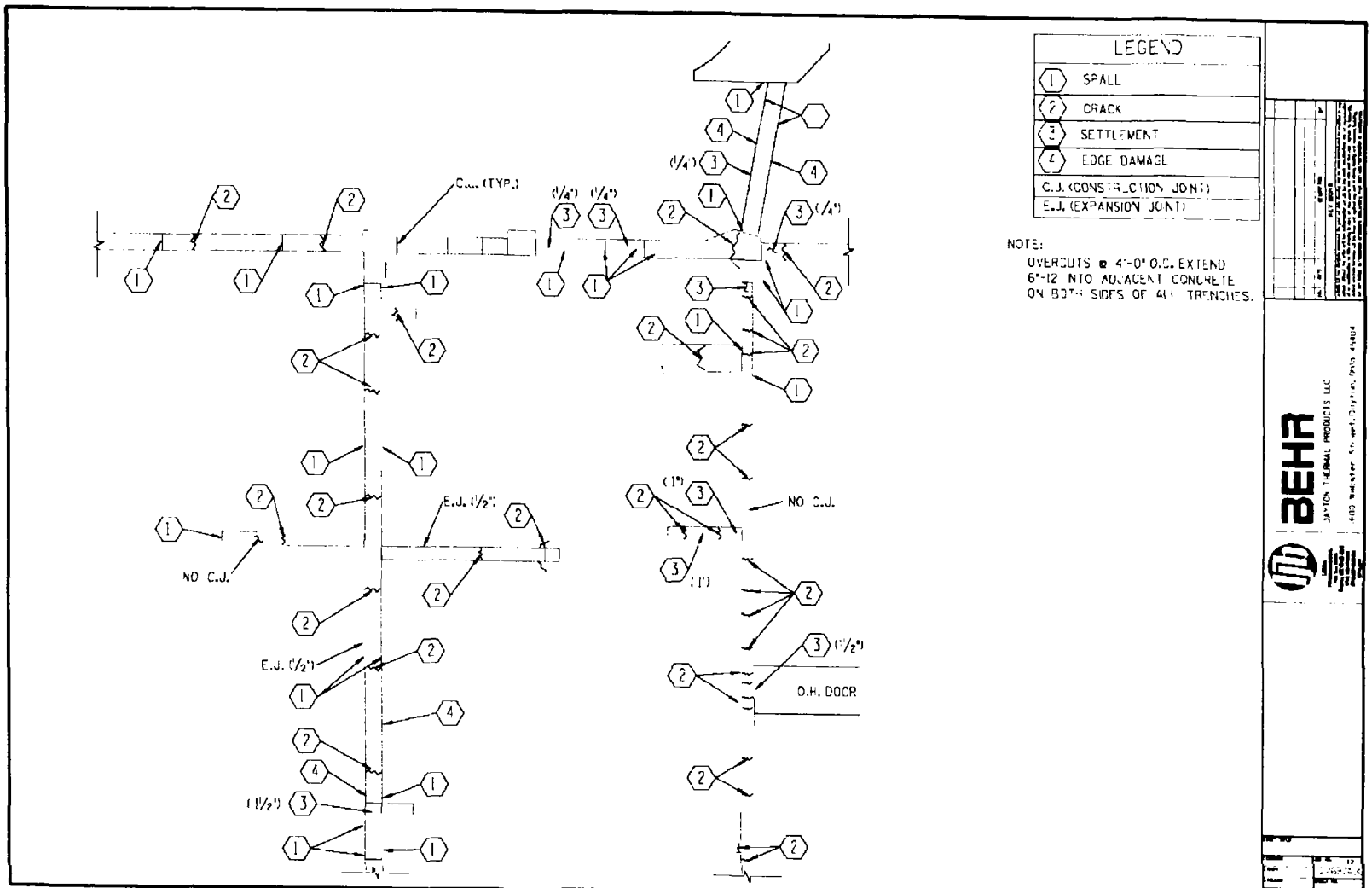

LEGEND
1 SPALL
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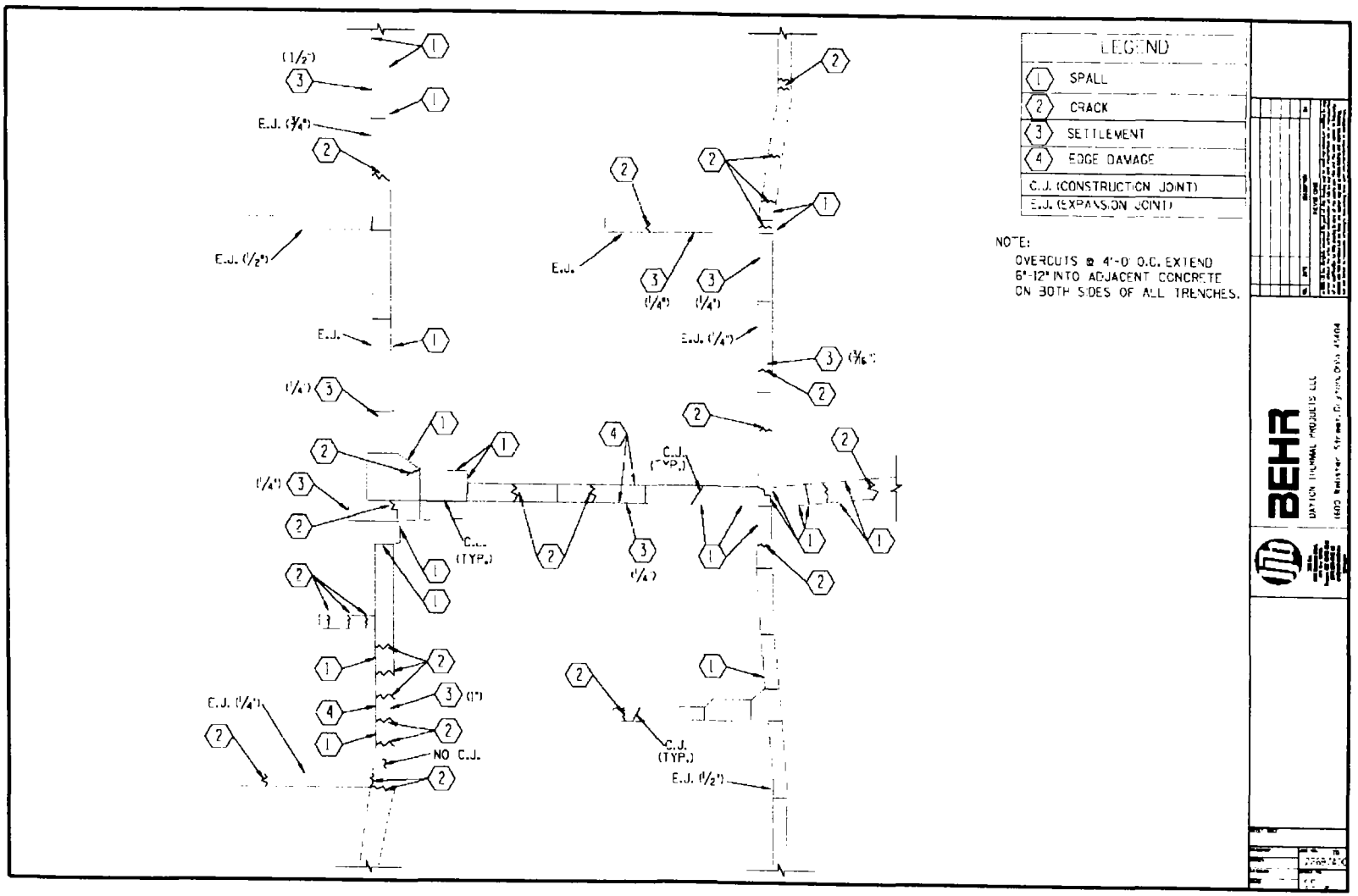
C.J. (CONSTRUCTION JOINT)
E.J. (EXPANSION JOINT)

NOTE:
OVERCUTS @ 4'-0" O.C. EXTEND 6"-12" INTO ADJACENT CONCRETE ON BOTH SIDES OF ALL TRENCHES.

BEHR
JAYTON THERMAL PRODUCTS LLC


(1/2")
E.J. (3/4")
E.J. (1/2")
E.J.
(1/4")
(1/4")
C.J. (TYP.)
E.J. (1/4")
(1")
NO C.J.
E.J. (1/2")
E.J.
(1/4")
(1/4")
E.J. (1/4")
(3/8")
C.J. (TYP.)
(1/4")
C.J. (TYP.)
E.J. (1/2")
LEGEND
1 SPALL
2 CRACK
3 SETTLEMENT
4 EDGE DAMAGE
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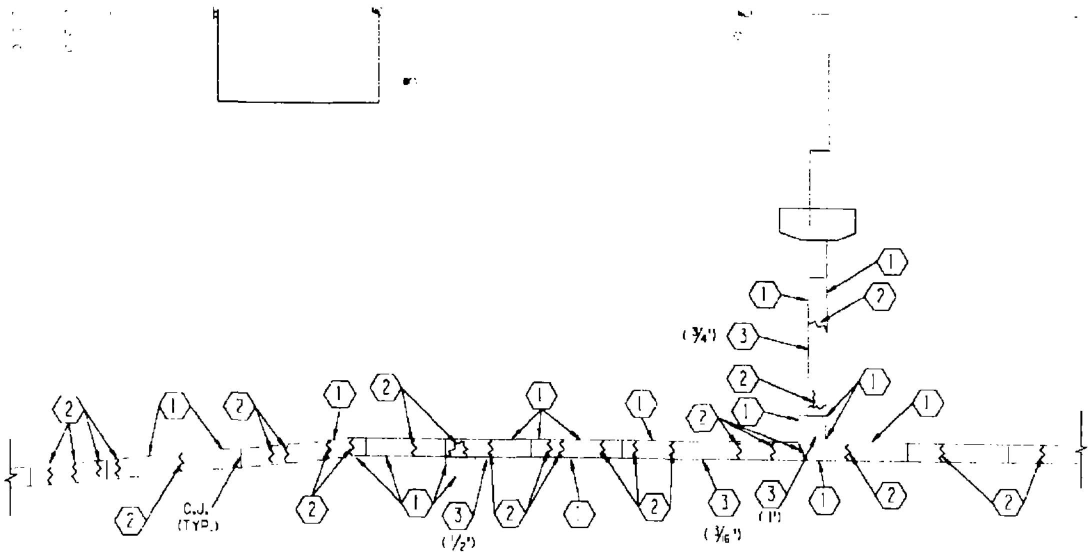
E.J. (EXPANSION JOINT)
NOTE:
OVERCUTS @ 4'-0" O.C. EXTEND 6"-12" INTO ADJACENT CONCRETE ON BOTH SIDES OF ALL TRENCHES.
BEHR



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BEHR
DAYTON THERMAL PRODUCTS LLC
1600 Webster Street, Dayton, Ohio 45404

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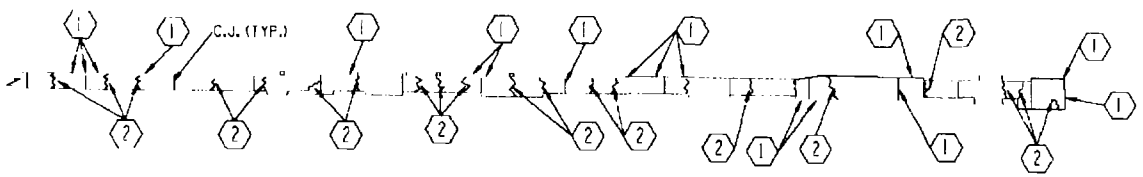
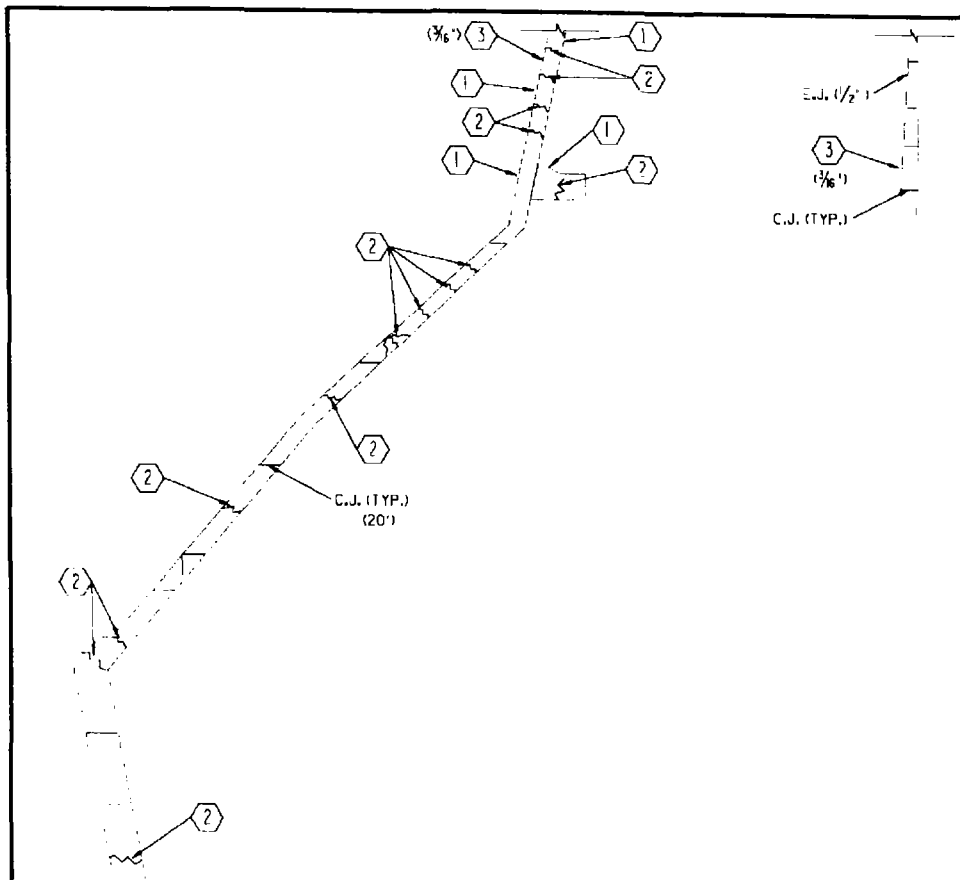


BEHR
DAYTON THERMAL PRODUCTS LLC
1600 Webster Street, Dayton, Ohio 45404



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BEHR
DAYTON THERMAL PRODUCTS LLC

LJB Inc.
3100 Research Blvd.
Dayton, OH 45420
(937) 259-5039 – Phone
(937) 259-5100 – Fax
kwilcox@ljbinc com

Kevin E. Wilcox, PE, CSP
Principal

EarthTech
A Tyco International Ltd Company
www.earthtech.com

36 E. Wandering Oak Drive T 281.367.0877
The Woodlands, TX 77381 F 281.367.0877

April 5, 2005

Ms. Melissa Michaels
DaimlerChrysler Corporation
800 Chrysler Drive East
CIMS 482-00-61
Auburn Hills, MI 48326

Subject: Response to Request for Quote (Change Order No. 2)
TCEQ NOD Response Letter and Regulation Review
Maxwell Dodge Supercenter (TX2477)
Austin, Texas 78717

Dear Melissa:

Earth Tech, Inc. (Earth Tech) respectfully submits this Change Order to prepare a response to a Notice of Deficiency (NOD) letter, dated February 24, 2005 received from the Texas Commission on Environmental Quality (TCEQ) for the above-referenced Property.

The following sections describe the proposed scope of work, associated assumptions, and the cost for this proposal.

SCOPE OF WORK

The Scope of Work for this proposal includes:

Preparation of TCEQ NOD Response Letter

Earth Tech will prepare a response to the TCEQ project manager addressing concerns about an unregulated closed municipal solid waste landfill (CMSWLF) located on the eastern undeveloped portion of the Property to the east of the Maxwell Dodge Supercenter facility. The suspect "borrow pit" is not in the area of concern addressed in the Phase I Environmental Site Assessment (ESA) and Site Investigation (SI) conducted by Earth Tech in 2004 and submitted to the TCEQ for a request for No Further Action determination for the Property. Based on TCEQ Municipal Solid Waste (MSW) regulations 30 TAC §330.953(a), Earth Tech believes that the TCEQ will grant no further action for the developed portion of the Property, but will require that the CMSWLF be addressed only when development is planned over that portion of the Property.

ASSUMPTIONS

The Scope of Work is subject to the following assumptions and conditions:

Project notification by DaimlerChrysler Corporation Assessment, Deactivation, and Remediation (AD&R) project manager will initiate project start-up activities.

- Four hard copies and one electronic copy of the submittal package will be forwarded on to DaimlerChrysler AD&R. Two of the hard copies will then be forwarded to the TCEQ Corrective Action Section (CAS) in Austin and one copy will be sent to TCEQ Regional Headquarters by AD&R. Additional copies of the report are not included.

COST

This work will be completed on a time-and-materials (T&M), not-to-exceed (NTE) basis, and does not include a contingency. As shown on the enclosed detailed cost estimate spreadsheet, the cost of this Change Order is $2,359.

We appreciate the opportunity to provide consulting services to DaimlerChrysler. If you would like to discuss this proposal, please call Karen Gallup at (281) 367-0877 or (713) 816-7148.

Very truly yours,

Earth Tech, Inc.

Karen Gallup, P.G.
Project Manager

Susan R. Shultz, P.E.
DaimlerChrysler Program Manager

Robert H. Jennings
DCRP Manager

Enclosure: As Noted

L:\work\TX2477\ENG\Proposals & Change Orders\CO2\dc maxwelldodgesuperCO2fnl.doc

ACUSTAR

Inter Company Correspondence

OCT 3 [illegible]

To--Name & Department			Telephone	Date
			841-6711	October 26, 1990
				CIMS Number
G. D. McCurly	Plant Manager, Dayton Thermal Products	Acustar		478-00-00
From--Name & Department				CIMS Number
L. L. Blair	Environmental Planning Manager	Acustar		404-01-01

Subject: DEMOLITION OF THE OLD MAXWELL COMPLEX

A serious problem recently developed at the McGraw Glass Plant involving the Michigan Department of Natural Resources (MDNR). The problem involves allegations by the State that McGraw Glass, through the actions of a subcontractor, improperly disposed of contaminated soil. There is a likelihood this alleged event may lead to an enforcement action against the plant. According to the plant, contractors were given verbal instructions to notify plant personnel in the event potentially contaminated soil or materials were found during demolish and excavation. The contractor in question now claims he was not given these instructions.

Since your plant is now in a situation similar to McGraw Glass and in the process of demolishing and replacing an old structure, there is a potential your contractors may also encounter contamination. The purpose of this memo, therefore, is to request your plant to communicate, in writing, clear instructions to the contractors in the event potential contamination is found. These instructions should also include the notification of specific plant personnel. In addition, I would suggest the plant retain a signed copy of the instructions from the contractors.

In response to the above situation, McGraw Glass has also decided to contract the services of a trained on-site environmental field engineer. This person will be responsible for overseeing the demolition of floors and examination of soils as well as any other environmental issues or concerns which may arise. This will include the monitoring, advising, and documentation of all environmentally related construction activities. In the event known or suspected contamination is discovered, steps can be taken to avoid future problems such as possible construction delays. I also suggest your plant evaluate the need for an on-site environmental field engineer.

If I can assist you in any way, please call.

Lou

L. L. Blair

LB12/vl

cc: P. R. Gilezan
J. A. Savage
R. W. Johnson
W. C. Achinger
W. F. Smith

Inter Company Correspondence

Telephone 848-2500 Date Nov. 6, 1990

To — Name & Department — MS Number

L. L. Blair, Environmental Planning Manager; Acustar, Inc.; Troy, Michigan — 404-01-01

G. D. McCurley, Plant Manager; Dayton Thermal Products Div.; Acustar, Inc. — 478-00-00

Subject: DEMOLITION OF THE OLD MAXWELL COMPLEX

REF.: I. C. C. dated October 26, 1990, to G. D. McCurley from L. L. Blair (Subject: "Demolition of the Old Maxwell Building")

In response to your warning of the problems that occurred at the McGraw Glass Plant, we have initiated the following actions:

1. Letters have been sent to the Shook Building Group (general contractor for the Maxwell demolition) and Walbridge Aldinger (concrete and foundation contractor for the new building), outlining the procedures to be followed if any suspicious soil is uncovered.

2. Intron Laboratories, who currently has on site a hygienist for monitoring airborne asbestos levels during demolition, will have the same person monitor for unusual-appearing or unusual-smelling soils. Intron has, at close proximity, a geologist or chemist available to respond to any unusual discoveries.

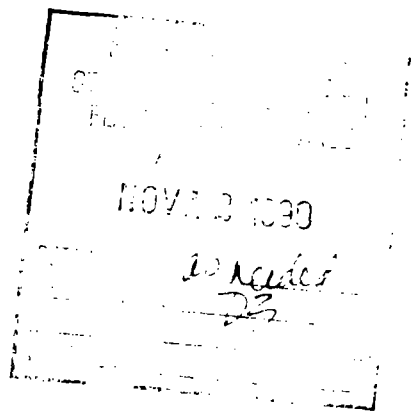
The aforementioned letters, the Intron Laboratories' response plan and the personal resume of the on-site hygienist, are attached. If there are additional precautions that you recommend, please let me know.

G. D. McCURLEY

RGB/lf

Attachments (4)

cc: W. F. Smith
Paul Newman ✓



84-110-7879 Rev 3-83

LJB
engineers
architects

5 November 1990

SHOOK BUILDING GROUP
Attention: Mike Schmidlin
P.O. Box 248
Dayton, Ohio 45401-0248

Re: ACUSTAR, Dayton
Maxwell Demo
Contaminated Material Testing/Disposal

Mike:

Please notify your equipment operators and superintendents that we must monitor all excavated material, including concrete slabs, for contamination.

Should they uncover or begin removal of any soil or concrete that is visually different or smells unusual, they must **STOP** work and alert the environmentalist from Intron Labs who will be on the job continuously for this reason.

The environmentalist will then make a judgment call as to the extent or degree of the contamination. If the contamination is severe enough to be of a questionable landfill material, he must take a sample and send it to their lab for analysis.

Unfortunately, the testing procedure required by EPA takes two (2) to three (3) weeks! The contaminated material will therefore be stored on site, on visqueen, covered with visqueen and surrounded by straw bales until the test results are concluded.

The test results must accompany the contaminated soil to the proper landfill for legal disposal.

1563 East Dorothy Lane
Kettering, Ohio 45429
TEL. 513-293-0033
FAX: 513-293-5850

LJB
engineers
architects

5 November 1990

Re: ACUSTAR, Dayton
Maxwell Demo
Contaminated Material Testing/Disposal

If you discover questionable material and Intron's environmentalist is not on site, **STOP** work and immediately call:

Intron Labs	**298-6800** Tim Blank, Industrial Hygienist
LJB	**293-6967** Walter Doench, Architect James Tunison, Architect Gerald Noe, Architect Harry Misel, Architect
Acustar	**224-2467** Doug Orf, Plant Environmentalist

Someone from Intron, or LJB, will be on the job site within twenty (20) minutes to evaluate the condition!!

Please call if you have any questions.

Sincerely,

LOCKWOOD, JONES & BEALS, INC.
engineers architects

Harry E. Misel, Jr., AIA
Principal Architect

HEM:msm

cc: Marvin Neargarder
Dick Beck
Doug Orf
Intron Labs

LJB
engineers
architects

5 November 1990

WALBRIDGE ALDINGER
Attention: Kenneth L. Beaudoin
613 Abbott Street
Detroit, Michigan 48226-2521

Re: ACUSTAR, Dayton
Building No. 59 Foundations
Contaminated Material Testing/Disposal

Mr. Beaudoin:

Please notify your equipment operators and superintendents that we must monitor all excavated material, including concrete slabs, for contamination.

Should they uncover or begin removal of any soil or concrete that is visually different or smells unusual, they must **STOP** work and alert the environmentalist from Intron Labs who will be on the job continuously for this reason.

The environmentalist will then make a judgment call as to the extent or degree of the contamination. If the contamination is severe enough to be of a questionable landfill material, he must take a sample and send it to their lab for analysis.

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1563 East Dorothy Lane
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TEL: 513-293-0033
FAX: 513-293-5850

LJB
engineers
architects

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Sincerely,

LOCKWOOD, JONES & BEALS, INC.
engineers architects

Harry E. Misel, Jr., AIA
Principal Architect

HEM:msm

cc: Marvin Neargarder
Dick Beck
Doug Orf
Intron Labs

INTRON LABORATORIES

2600 Far Hills Ave. • P.O. Box 523 Wright Brothers Station • Dayton, Ohio 45409

November 6, 1990
Mr. Harry Misel
Lockwood, Jones And Beals
1563 Dorothy Lane
Kettering, Ohio 45429

Dear Mr. Misel,

RE: SLAB REMOVAL AND FOOTER EXCAVATION

Intron Laboratories has been retained by Chrysler to observe the soils beneath the Maxwell Complex demolition project. This includes the soil being excavated for the new building footers and the soil underneath the Maxwell Complex slab.

The Maxwell Complex has never been a hazardous chemical manufacturing or disposal site, nor is there any historic evidence that the Maxwell complex was engaged in operations involving hazardous waste treatment, storage and disposal (TSD).

Due to the nature of activities conducted at this site over the years, it would appear unlikely any hazardous materials would be discovered within the soil; however, It is prudent (since the entire history of the site is unknown) to be observant for obvious changes in the matrix of excavated soils. Soils should remain reasonably homogeneous as to color, texture, moisture solubility, density and odor. These observations are fairly straightforward and uncomplicated.

Intron Laboratories has on site an Industrial Hygienist taking OSHA compliance air samples on the abatement workers, as well as on the demolition workers. The hygienist has also been observing the soils being excavated. If any unusual soil is observed, Intron's hygienist is to call the office and within 20-40 minutes Intron can provide a Geologist or Chemist for further investigation and/or sample taking.

If for any reason Chrysler is not satisfied with this arrangement, Intron Laboratories can provide an on-site chemist, geologist or hydrogeologist.

Sincerely,

Intron Laboratories

Charles J. Blank Jr.
Chemist

INTRON LABORATORIES

2600 Far Hills Ave. • P.O. Box 523 Wright Brothers Station • Dayton, Ohio 45409

Mr. Harry Misel
Lockwood, Jones And Beals
1563 Dorothy Lane
Kettering, Ohio 45429

Dear Mr. Misel,

If the following letter in not satisfactory for Chrysler and they would prefer to have on site a geologist, chemist or hydrogeologist/petrologist, they are available. The rates are as follows:

Geologist:	40/HR.
Chemist:	40/HR.
	50/HR.-WEEKENDS
Hydrogeologist/Petrologist	55/HR.
	75/HR.-WEEKENDS

INDUSTRIAL HYGIENIST AND BUILDING INSPECTOR:

Charles J. Blank Jr., IH, President of Intron Laboratories, Industrial Hygienist with more than five years experience in the fields of asbestos and industrial hygiene. Prior to joining Intron Laboratories, Mr. Blank served as an Industrial Hygienist for a large midwestern asbestos consulting firm in charge of air sampling, inspections, and analysis at many asbestos abatement projects. Experience also includes **CERLA** (EPA SUPERFUND) work. Mr. Blank is an experienced microscopist trained in the analysis of airborne asbestos samples, and is accredited by the Ohio Department of Health as an Asbestos Hazard Evaluation Specialist. Mr. Blank is a member of the **American Chemical Society**, and has served as an instructor in hazardous waste training and asbestos operations and maintenance training courses.

EDUCATION: B.S. Chemistry, Wright State University, Dayton, Ohio, 1988

Safe Methods of Asbestos Removal, University of Cincinnati, 1987; Sampling and Analysis of Airborne Asbestos Dust, **NIOSH 582, NIOSH**, Cincinnati, Ohio 1987; Asbestos Building Inspections Procedures, University of Cincinnati, 1988; Asbestos Management Planner Training, University of Cincinnati, 1988; Asbestos Building Inspections Procedures Refresher Course, University of Cincinnati, 1989; Asbestos Management Planner Training Refresher Course, University of Cincinnati, 1989.

GEOLOGIST-MINERALOGIST AND BUILDING INSPECTOR

James F. Bernard, Geologist-Mineralogist is an experienced microscopist trained in the analysis of airborne asbestos samples. Prior to his association with Intron Laboratories, Mr. Bernard served as an Environmental Geologist performing groundwater monitoring, building foundation inspections, tank testing and geological environmental assessments for a large engineering consulting group. Mr. Bernard is experienced in polarized light microscopy, crystallography and mineralogy. Mr. Bernard is currently on staff at Sinclair Community College as a geology and mineralogy instructor.

EDUCATION: B.S. Geology, Wright State University, Dayton, Ohio, 1987

Attended Ohio Safety Training Course for Hazardous Materials, Springfield Safety Council, 1988; **Certified Tank Testing,** Health Consultants Inc. Petro-Tite Tank Testing Systems, 1988; Certified in CPR, Red Cross, 1987; Sampling and Analysis of Airborne Asbestos Dust, **NIOSH 582, NIOSH,** Cincinnati, Ohio 1989, Asbestos Building Inspections Procedures, Helix Environmental, Dayton, Ohio 1990, ; Asbestos Management Planner Training, Helix Environmental, Dayton, Ohio 1990.

RICH'S®

RICH PRODUCTS CORPORATION

Environmental Assessment of 521 Kiser Street Dayton, Ohio

Robert C. Najjar, PhD
Project Manager

Jane M. Staten
Quality Assurance/Quality Control

prepared by:

URS Consultants, Inc.
282 Delaware Avenue
Buffalo, New York 14202

G2076

April 1995

TABLE OF CONTENTS

1.0 INTRODUCTION

URS Consultants, Inc. (URS) was retained by Rich Products Corporation to perform a Phase I Environmental Site Assessment (ESA) of the Rich Products facility located at 521 Kiser Street in the City of Dayton, Montgomery County, Ohio.

1.1 Purpose

The objective of this ESA is to evaluate the potential for environmental impairment at the subject property, based on current conditions and present and past activities at the subject property and neighboring properties.

1.2 Scope

The scope of work performed for this evaluation is consistent with the American Society for Testing and Materials (ASTM) Standard E-1527-93 Standard Practice for Environmental Site Assessments, and includes the following:

- Observation of current land use within ¼ mile of the site
- Identification of known environmentally significant properties within the radial distances recommended by ASTM
- Review of information regarding past uses of the site and adjacent properties
- A walkover of the subject property
- Review of information from federal, state and local agencies

2.0 EXISTING SITE SETTING

2.1 Site Description

The subject property is located within the City of Dayton. It is bounded by: Leonhard Street then Yoder Die Casting to the north; Kiser Street then Standard Die Supply, Mark Concepts and the City of Dayton departments of Traffic Signals and Property Management to the east; Pennsylvania Avenue, residences and an open field to the south; and an open field then Dayton Machine Tool and Aramark Uniform Services to the west (see Figure 1).

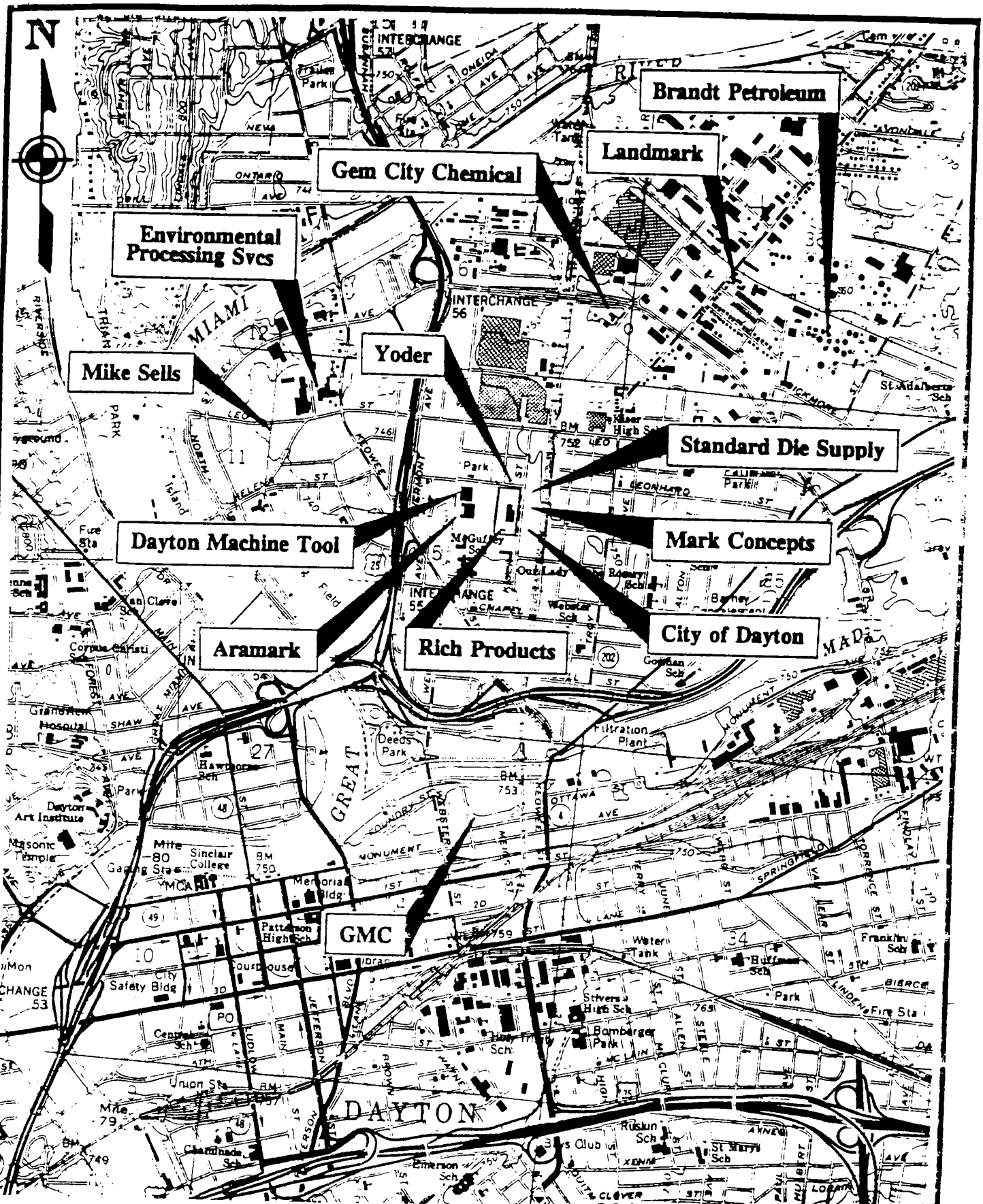
The subject property holds one building, an 83,000 square foot (sq.ft.) bakery plant which closed in December 1994. The remainder of the property is primarily covered with paved parking, as well as lawn areas along the east side of the building and a portion of the north side.

Water and sewer services are provided by the City of Dayton, and electricity and natural gas by Dayton Power and Light (DP&L).

2.2 Site Reconnaissance

A physical review of the property was conducted on April 18 and 19, 1995, to assess the conditions of the building and grounds. The URS representative, Ms. Carol Wilson, was provided with a tour of the building by Mr. William Northern, Maintenance Supervisor. Photographs taken during the site reconnaissance are contained in Appendix A.

The building has a masonry construction with a flat roof. The majority of the production area has brick floors, block walls and wood ceilings. Coolers and freezers have insulated panels or concrete for walls and ceilings, and metal, concrete or brick floors. The offices generally have carpeting, suspended or spline ceiling tiles, and wallpaper or painted wallboard walls. The small basement has a poured concrete floor, and block walls and ceiling. Wood floors and wall paneling, vinyl and ceramic floor tiles, suspended ceiling tiles over old plaster ceilings, vinyl wall and ceiling panels, corrugated metal walls and ceiling, and poured concrete floors occur in limited areas of the building. Fluorescent lights were used throughout the building.



MAP SOURCE
USGS 7.5 MINUTE SERIES QUADRANGLE
DAYTON NORTH, OHIO, 1965, rev. 1992

URS CONSULTANTS, INC.	**SITE INFORMATION MAP** RICH PRODUCTS DAYTON, OHIO	**FIGURE 1**

A-7858

The roof has been replaced in sections over the last 8 to 10 years. Bill Northern stated that the entire roof is no more than 10 years old. He also indicated that these recent replacements involved stripping off old roofing materials. Based on this information, there should be no roofing materials older than 10 years on the building. This makes it highly unlikely that any roofing materials contain asbestos.

While the majority of pipes visible in the building were not insulated, a small percentage were. The pipe insulations observed during the site visit included fiberglass with paper covering, black foam, corrugated paper, and a foam material covered with semi-rigid plastic sleeves which had been installed fairly recently. Insulation in the freezers and coolers was not accessible. Insulation in the ovens was observed through an access panel, and consisted of a rock wool material which may be fiberglass, and a rigid foam.

Chemical products were observed in 5 areas of the building. These locations and a general characterization of the materials stored in each follows:

1) The Hazardous Materials Storage Room near the west employees' entrance to the building contains cleaners, pesticides, oil and calcium chloride

2) The Receiving area at the southeast corner of the building contains 4 150-lb ammonia cylinders and 2 ammonia tanks, a collection bucket for waste oil from compressors, scale/corrosion inhibitor and bactericide/algicide/fungicide for cooling water, and food-grade glycerine

3) The Engine Rooms on the west side of the building hold ammonia tanks, containers of oils, glycol for the frost-free freezer coils, and scale/corrosion inhibitor and bactericide/algicide/fungicide

4) The Dayton Dock at the northeast corner of the building contains various size drums and buckets of oils and glycol, as well as smaller cans of paint, enamel, varnish and strippers

5) The Maintenance Shop adjacent to (south of) the Dayton Dock has a parts cleaner owned by Safety Kleen, and maintenance products such as oils and paint

Specific chemical products are identified in Appendix B, consisting of lists of all maintenance and sanitation products which *may* be on-site. Not all products remain in the closed facility. Only one area showed evidence of spills or leaks of chemical fluids: oil residue was observed on the floor around a bucket which drained an oil trap for an ammonia compression tank in Receiving. Since the floor in Receiving is concrete, this residue does not appear to be a significant contamination concern.

Three electrical transformers were observed in Receiving. All three were labeled "dry type". This indicates that they were not manufactured using potentially PCB-containing oils. A large electrical transformer is reported to be in a locked vault off the Receiving dock. Mr. Northern stated that it is owned by Dayton Power & Light and can only be accessed by DP&L. A large pad-mounted transformer along the west fence line is also owned by DP&L. While it is not known whether the DP&L transformers contain PCB oils, any potential problems which may occur relating to the transformers and possible PCB oils would be the responsibility of DP&L. Therefore, the two large transformers should not present an environmental impact concern for the property owner.

A water supply well which formerly served the building is located in Receiving. It had a 2 ft.diameter metal cover which could not be removed during the site visit. Pipes which used to lead from the well and come up through the floor had been cut off and capped with concrete. While the well could not be accessed, floor around the cover and concrete caps was observed to be clean and showed no evidence of spills reaching those openings. The well does not appear to be an environmental concern.

Floor drains were observed in several areas of the building, including the hallway leading to Receiving, and the Production area. All drains observed by URS were clean.

Five 55-gallon drums, one 10-gallon drum and one 8-gallon jug of waste oil were located outside on the west side of the building, for pick-up on call by Safety Kleen. Eleven empty

drums were stacked on pavement along the south fence line. Mr. Northern stated that they used to contain oil and glycol.

Automotive oil appears to have been dumped on the property, along the west fence line. This is discussed in detail in Section 5 of this report.

Several automobiles were observed to be parked on the south side of Leonhard Street, along the north line of the Rich Products property. The shoulder in that area is partially paved, and partially gravel. Roughly half of the puddles that were present in that area from recent rain had a slight sheen, suggesting that automobiles had dripped fluids. The extent of this appears to have been limited, and it does not appear to be a significant concern for the subject property.

One potential item of concern was observed on adjacent properties. About 75 55-gallon drums were stored in a paved parking lot at the southwest corner of the Yoder Die Casting property, north of the subject parcel. Some of these drums held trash, some were empty, and some were covered and held liquids. The pavement around the drums was stained. It is not known what was stored in the drums. The Yoder parking lot sloped to the south, towards Leonhard Street, while the north portion of the Rich Products property sloped gradually north towards Leonhard Street. No residue was visible on Leonard Street itself, therefore it appears that these drums have not released material to the Rich Products property.

2.3 Geologic Setting

According to the Montgomery County Soil Survey (U.S. Department of Agriculture, Soil Conservation Service, 1976), the Rich Products property is characterized as having Fox-Urban complex soil. These soils encompass areas which have been disturbed by earth-moving operations associated with development, where the original soil was Fox loam. Most of the Fox-Urban soils are well-drained. Fox loams are characterized as being well-drained overall, having a moderately permeable subsoil at a depth of about 8 inches, and a highly permeable sand and gravel substratum at 24 to 42 inches.

The property is generally level, with gentle slopes in 2 sections of the property: the grass

area west of the west parking lot slopes to the east, and the area north of the building slopes to the north. The entire U-shaped area bounded by the Great Miami and Mad Rivers, in which the subject property is located, is generally level and shows very little topographic relief.

The Groundwater Protection Strategy for the Miami Valley Region (Miami Valley Regional Planning Commission, February 1990) identifies a groundwater divide running east-west through or very near the subject property. Groundwater at the Rich Products property could therefore flow north and south away from the parcel (see Figure 2).

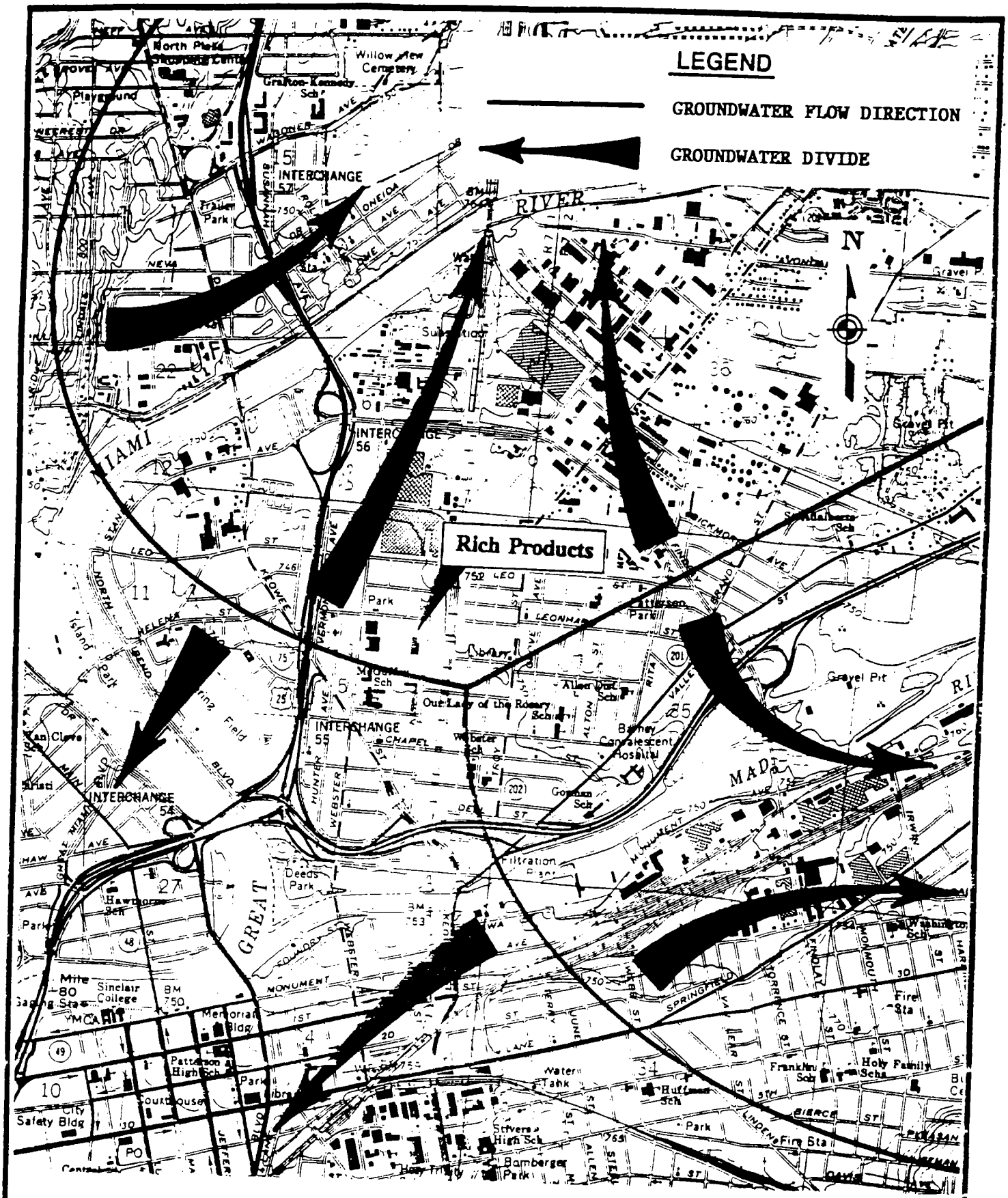
2.4 Wetlands and Floodplains

The City of Dayton Planning Department includes on its zoning maps. The City of Dayton Official Zoning Map shows no floodplains on or near the Rich Products property.

Mr. Hugh Trimball of the Ohio Environmental Protection Agency (EPA) stated that Ohio EPA does not map wetlands. It uses the USDA Soil Conservation Service's Soil Survey to identify locations of wetlands. The Montgomery County Soil Survey did not show hydric soils, open water, or other indications of wetlands on or near the subject property.

FIGURES

APPENDICES



MAP SOURCE
USGS 7.5 MINUTE SERIES QUADRANGLE
DAYTON NORTH, OHIO, 1965, rev. 1992

URS CONSULTANTS, INC.

INTERPRETED GROUNDWATER FLOW DIRECTION
RICH PRODUCTS, DAYTON, OHIO

FIGURE 2

A-7859

3.0 SITE HISTORY

The history of the Rich Products property was reviewed using historic aerial photographs, Sanborn Fire Insurance Maps, historic atlases and City Directories.

Aerial photographs were reviewed to provide information regarding past conditions at the subject property and neighboring properties which could be of environmental concern. The aerial photos reviewed included the following years: 1949, 1962, 1968, 1975, 1980 and 1987. Sanborn Fire Insurance Maps are obtained for information pertaining to past land uses and the use and storage of hazardous materials. Sanborn maps dated 1950, 1956, 1962 and 1985 were reviewed. Historic atlases provide land ownership information. Those reviewed included the Map of Montgomery County, dated 1851; Atlas from the Titus' Map of Montgomery County, 1869; and the Combination Atlas Map of Montgomery County, 1875. Dayton City Directories from R.L. Polk and The Williams Directory Company were reviewed for historic occupancy of the subject property and surrounding parcels, selecting directories generally at 5-year intervals from 1913 to 1992.

A map of Dayton in 1799 which was included in the 1875 Combination Atlas Map of Montgomery County showed that only a small section of the current downtown Dayton area had been developed. The 1851 Map of Montgomery County and 1869 Atlas illustrated the division of the subject property area, then part of the Mad River Township, into large tracts owned by a few families. The subject property was part of a tract owned by D. Kiser. On the 1875 Combination Atlas Map it was part of a less extensive tract owned by B.F. Kiser.

In the early 1900s, Kiser Street was a residential street, Leonhard had no development from Kiser Street west to Webster Street, and Pennsylvania Avenue did not exist, according to the City Directories. Blue Bird Baking Company first appeared in the Directories in 1928, and was listed at 525 Kiser Street. The street number changed to 523, then 519-523, 519, and finally 521, but remained the only business listed in the building until the purchase by Rich Products.

The City Directories identify a Blue Bird Service Station at 601 Kiser Street from 1945 to 1954, and a filling station is still shown in 1956 on the Sanborn map. The gas station was part

of the bakery building, in the northeast corner. Two gasoline tanks were associated with the service station. Mr. Northern stated that two additional tanks on the property contained fuel oil, and two contained diesel. These tanks reportedly were all removed in 1991, as discussed in section 5.5 of this report.

The development of the east side of Kiser Street across from the subject property occurred in the following sequence, considering buildings from north to south. Clark Tool & Engineering Company was located at 630 Kiser Street, the current address of Standard Die Supply, from about 1945 to 1950. By 1951 this location was occupied by Mechanics Uniform Service, then taken over by Standard Die Supply in about 1980. Litho Print, Inc., shared space in Standard Die Supply's building in the early 1980s. Sun Oil Company occupied a site listed as 602 Kiser Street from about 1920 to 1951. The 1950 Sanborn map shows that it occupied the current Mark Concepts site. Eight aboveground gasoline tanks surrounded by a dike, and at least two additional tanks were shown on that map, and the tanks were still present on the 1956 Sanborn map. Hugo Deis Distributors (beer) took over shortly thereafter, and a 1962 Sanborn map shows that the tanks were no longer present. Mark Concepts occupied the building starting in 1986, and the street number was later changed to 600.

The current City of Dayton property began as Dayton Metal Body Company (auto bodies) at 500 Kiser Street in 1921. This was replaced by the National Recording Pump Company in 1922, and the street number changed to 520 in about 1930. It became a City municipal garage in the mid-1950s and has since been occupied by various City offices including the Bureau of Weights and Measures, Division of General Services, Public Health Nursing Service, Division of Traffic Signals (and its predecessor Telegraphs and Signals) and Division of Property Management.

To the north across Leonhard Street, the parcels along Leonhard Street were residential until the 1960s. Yoder Die Casting opened further north (no. 727) around 1958, then expanded to include the corner of Leonhard and Milburn by 1968. The residential lot at the corner of Leonhard and Kiser was occupied by Mechanics Uniform Service in about 1962, and taken over by Yoder around 1970.

The open field to the west, as well as the north portion of the Rich Products property, were occupied by the McGuffey Homes Apartments in the 1949 aerial photograph and 1956 Sanborn map. It is not known when the apartment complex was constructed. Milburn Avenue extended south to Pennsylvania Avenue to form the main drive through the complex, and other drives were present. The 1962 Sanborn map indicates that all buildings had been removed. The remains of the roads from the apartment complex are still present in the field, and were visible in later aerial photographs.

The historic land uses of several of the surrounding properties suggest or confirm the presence of petroleum and chemical bulk storage tanks. Sun Oil Company is known to have aboveground and possibly underground tanks, the former municipal garage at the City of Dayton site could potentially have had gasoline tanks, and Mechanics Uniform Service may have had solvent tanks for dry cleaning. Given the interpreted northerly direction of groundwater flow in the area, groundwater from these sites should not flow towards the subject property. Based on this, combined with a lack of reported spills at those sites (with the exception of a spill at Mark Concepts which is reported to have been remediated), there is no evidence of environmental contamination of the subject parcel due to historic land uses on adjacent properties.

4.0 DATABASE REVIEW AND AGENCY CONTACTS

In order to identify reported environmental concerns at the subject property or neighboring properties which may potentially impact the subject property, URS requested a federal and state database search from Environmental Risk Information and Imaging Services (ERIIS). ERIIS compiles up-to-date information from pertinent federal and state agencies to identify known environmental problems within the radial distances recommended by ASTM Standard E-1527-94. Such agencies include the U.S. Environmental Protection Agency (USEPA) and the Ohio Environmental Protection Agency (OEPA). Sites identified by the database are shown on Figures 1 and 4 and discussed in sections 4.1 and 4.2 below.

URS also contacted state, regional and local agencies for additional information pertaining to potential reported environmental problems in the vicinity of the subject property. These included the City of Dayton Fire Administration and Planning Department; the Montgomery County Engineering Department and Environmental Health Administration; and the Miami Valley Regional Planning Commission.

4.1 U.S. Environmental Protection Agency

4.1.1 National Priorities List

Sites included on the National Priorities List (NPL) are sites that are targeted by the USEPA for possible long-term remedial action under Superfund. No NPL sites were identified within a one-mile radius of the subject property.

4.1.2 Comprehensive Environmental Response, Compensation and Liability Information System

The Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) list is a compilation of known and suspected uncontrolled or abandoned hazardous waste sites. These sites have been investigated or are currently under investigation by the USEPA for the release, or threatened release, of hazardous substances. No CERCLIS sites

were identified within a ½-mile radius of the subject property.

4.1.3 Resource Conservation and Recovery Act

USEPA's Resource Conservation and Recovery Act (RCRA) provides for "cradle-to-grave" regulation of hazardous waste. Sites listed in the RCRA database have become part of the RCRA program and have obtained a RCRA identification number to generate hazardous waste and/or obtained a permit to transport, treat, store and/or dispose of hazardous waste. ASTM Standard E-1527-94 requires the identification of hazardous waste treatment, storage and disposal (TSD) facilities with one mile of the subject property, and hazardous waste generators at the site and on adjoining properties.

There are two RCRA TSD facilities within a one-mile radius of the subject property, each 0.7 mile or more from the Rich Products facility (see Figure 1):

Name and Address	Location
Environmental Processing Services 416 Leo Street	0.7 miles northwest
GMC Harrison Division - Dayton Plant 300 Taylor Street	0.9 miles southwest

URS has submitted a Freedom of Information Act request to OEPA for any additional information on these sites. Any relevant information received from OEPA will be forwarded as an addendum to this report. Even in the event that these sites have released hazardous materials or wastes to groundwater, the interpreted groundwater flow directions to the north at Environmental Processing Systems, and to the south at the GMC site, should carry such potential contaminants away from Rich Products. These RCRA TSD facilities do not appear to be a significant site contamination concern for the subject property.

Five RCRA small quantity hazardous waste generators (SQG, generating 100 to 1,000 kg/month) and one large quantity generator (LQG, generating more than 1,000 kg/month) were identified within 0.25 mile of the subject property:

Name and Address	Generator Type	Location
City of Dayton 520 Kiser Street	SQG	immediately southeast
Tape Tech Inc. 1 Edmund Street	SQG	0.1 mile southeast
W&W Molded Plastics Inc. 1441 Milburn Avenue	SQG	0.2 miles northwest
Dayton Machine Tool Company 1314 Webster Street	SQG	0.2 miles northwest
Aratex Services Inc. 1200 Webster Street	LQG	0.2 miles southwest
Sheffield Machine Tool Inc. 1506 Milburn Avenue	SQG	0.2 miles northwest

4.1.4 Emergency Response Notification System

The Emergency Response Notification System (ERNS) is a national database system that is used to store information on the sudden and/or accidental release of hazardous substances, including petroleum, into the environment. No ERNS sites were reported within one mile of the subject property.

4.2 Ohio Environmental Protection Agency

4.2.1 Master Sites List

The Ohio Master Sites List contains those sites in Ohio where hazardous waste has been found or where there have been known, suspected or likely releases of hazardous wastes from a facility. There are three Master Site List sites within one mile of the Rich Products property (see Figure 1):

Name and Address	Location
Gem City Chemical 1287 Air City Avenue	0.6 miles northeast
Environmental Processing Services 416 Leo Street	0.7 miles northwest
Mike Sells 333 Leo Street	0.8 miles southwest

The distances between each of these sites and the Rich Products property suggest that the groundwater divide will cause groundwater at these sites to flow away from Rich Products. If hazardous waste releases at these sites resulted in contaminants reaching groundwater, those contaminants should be carried away from the Rich Products property. Therefore, these sites do not appear to present a site contamination concern for the subject parcel.

4.2.2 Underground Storage Tank List

The database reports all underground storage tanks (USTs) within 0.25 mile radius that are registered on the Ohio Underground Storage Tank List. There are three reported UST facilities within 0.25 mile:

Name and Address	Location
Mark Concepts 600 Kiser Street	immediately northeast
Setser Sheet Metal 1235 Leonhard Street	0.1 mile northeast
Aratex Services 1200 Webster Street	0.2 miles southwest

4.2.3 Leaking Underground Storage Tank List

The Leaking Underground Storage Tank (LUST) List is a comprehensive listing of all reported leaking USTs within the State of Ohio. The database lists 11 LUST sites within 0.5 mile of the subject property:

Name and Address	Location	Corrective Action Taken?
Rich Products Corporation 521 Kiser Street	site	yes
Mark Concepts 600 Kiser Street	immediately northeast	yes
Setser Sheet Metal 1235 Leonhard Street	0.1 mile northeast	yes
Aratex Services	0.2 miles west	no

1200 Webster Street		
Heidelburg Distributing Company 1226 Schaeffer Street	0.2 miles northeast	yes
Pepsi Cola 1032 Chapel Street	0.3 miles southeast	yes
Paint America 1501 Webster Street	0.3 miles northwest	yes
Ohio Valley Painting Company 270 Vermont Avenue	0.3 miles southwest	no
Chrysler Dayton Thermal Products 1600 Webster Street	0.3 miles northwest	no
Barg Bottling Company 1607 Webster Street	0.3 miles northwest	yes
Pepsi Cola 526 Milburn Avenue	0.5 miles southwest	no

URS has submitted a Freedom of Information Act request to OEPA for any additional information on these sites. Any relevant information received from OEPA will be forwarded as an addendum to this report. As with the Ohio Master List sites, it is expected that the groundwater divide will cause groundwater at the unresolved LUST sites to flow away from Rich Products. These interpreted flow directions would cause any contaminants which might reach groundwater from these LUSTs to be carried away from Rich Products. Therefore, these sites do not appear to present a significant site contamination concern for the subject parcel.

4.2.4 Solid Waste Facility List

The Ohio Solid Waste Facility List is a listing of all permitted solid waste landfills and processing facilities currently operating within the State of Ohio. There are no solid waste facilities reported by the database within 0.5 mile of the subject property.

4.2.5 Miami Valley Groundwater Protection Strategy

Two additional waste disposal sites are identified on the Waste Disposal Data Map included in the Miami Valley Groundwater Protection Strategy (February 1980)

Name and Address	Location	Waste Materials	Status (1980)
Brandt Petroleum Terminal 621 Brandt Street	0.8 mi. NE	Petroleum leaks and spills	Remediation under way
Landmark (landscaping) Troy Pike	0.8 mi. NE	Petroleum leaks and spills	Remediation pending

The study which identified these sites was prepared in 1980, and URS has been unable to obtain updated information on these sites. It is possible that remediation has been completed. Whether or not contamination has been completely remediated, the two sites are not believed to represent an environmental concern for the subject parcel. The interpreted groundwater flow directions indicate that either of the two sites would have minimal impact on the Rich Products property, since groundwater would flow north and away from the subject property.

4.3 State, Regional and Local Agencies

4.3.1 City of Dayton Fire Administration

The City of Dayton Fire Administration responds to hazardous materials spills and incidents within the City of Dayton. The Fire Administration stated that they have not records of hazardous materials spills at the Rich Products facility.

4.3.2 City of Dayton Planning Department

Copies of maps and photographs were obtained at the City of Dayton Planning Department, such as aerial photographs, floodplains map and planimetric maps of the city.

4.3.3 Miami Valley Regional Planning Commission

The Miami Valley Regional Planning Commission supplied information on soils, groundwater flow and waste disposal sites, as well as copies of aerial photographs. The information obtained from the Planning Commission has been incorporated into this report.

4.3.4 Ohio Environmental Protection Agency

The Dayton office of the Ohio Environmental Protection Agency provided information on wetlands.

5.0 ENVIRONMENTAL ISSUES

5.1 Oil Spill Area

Used automotive oil appears to have been dumped on the property, along the west fence line between the DP&L transformer and the fence. This was evidenced by dark staining of the ground and the presence of a used oil filter. While it appears to have been a one-time occurrence, as much as several quarts of used oil may have been dumped at that location. The urban nature of soils on the site, a result of grading and construction activities, makes the permeability of the surface soil uncertain. The Montgomery County Soil Survey states that permeability is moderate in the subsoils and rapid in the sandy and gravelly substratum. This increases the depth that the waste oil could potentially have reached.

5.2 Hazardous Materials Handling and Storage

Hazardous materials at the Rich Products facility include paints and enamels, oils, cleaners, pesticides and ammonia, as identified in Section 2 of this report. No significant staining or odors were observed in the building which would suggest environmental contamination through spills or releases. The materials appeared to be handled in a prudent and appropriate manner to minimize the potential for spills and releases.

The eleven empty drums on pavement along the south fence line were reported to have previously contained oil and glycol. The area around the drums showed no soil staining, dead or stressed vegetation, or other obvious physical evidence of spills or leaks from the drums.

URS observed no obvious evidence of mishandling of used products and wastes which would result in significant contamination inside the building. While oil residue was observed on the floor around a bucket which drained an oil trap for an ammonia compression tank in Receiving, the concrete floor in that area should prevent the residue from becoming a significant contamination concern.

Spillage was observed around the waste oil drums stored outside on the west side of the

building. A 3-ft. x 5-ft. area of thickened residue was present on the pavement. Since the drums and residue were located on pavement, there was no evidence that this spillage had adversely affected the environment. It is not believed to be a significant site contamination concern.

5.3 Asbestos

Several building materials have the potential to contain asbestos. These potential asbestos-containing materials (ACM) could include floor tiles, ceiling tiles, pipe insulation, and insulation in ovens and freezers. All of these materials were in good condition and did not appear to pose an exposure hazard in their current condition for the present use of the facility. Sampling and laboratory analysis would be warranted only if these materials are to be disturbed, as described in Section 6 of this report.

At the time of this report, Mr. Demitri Preonas, Manager of the facility, arranged for sampling and laboratory analysis of the insulation in the ovens.

5.4 Polychlorinated Biphenyls

Polychlorinated biphenyls (PCBs) are typically associated with fluid-cooled (liquid) electrical transformers, large capacitors, wet switch gear, fluorescent light ballasts and hydraulic oils manufactured between the early 1940s and late 1970s. They are sometimes associated with older hydraulic freight elevators. The use of PCBs in items sold in the United States was largely banned in 1978 by the Toxic Substances Control Act (TSCA).

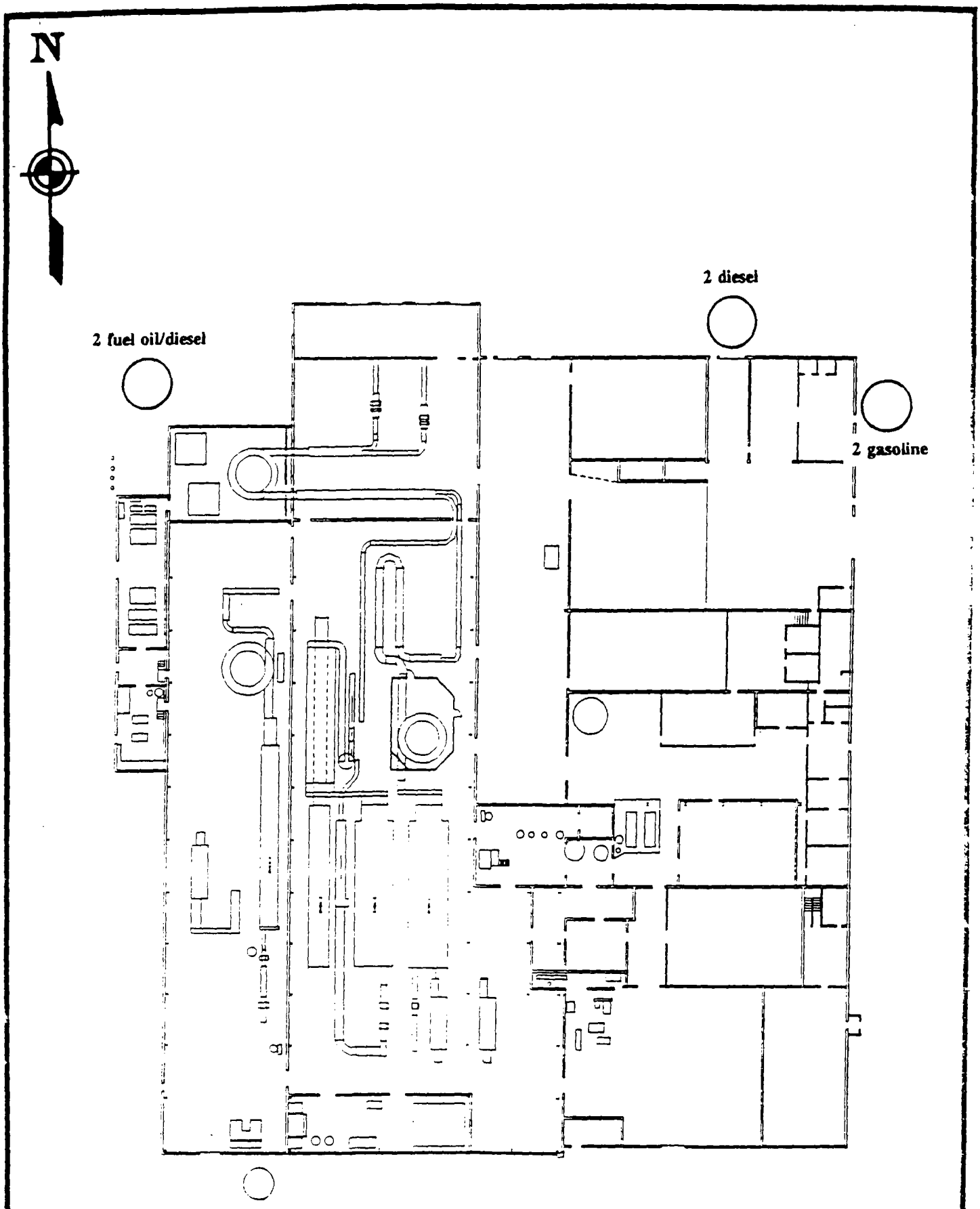
Fluorescent lights are used throughout the building. The installation dates of most are unknown, while those in the office are known to have been installed in about 1985. The potential exists for the ballasts in areas other than the office to contain PCBs. No obvious indications of leaking ballasts were observed during URS's site visit. Ballasts are gradually replaced as they wear out, and they should be disposed of in accordance with local, state and federal requirements.

5.5 Past Underground Storage Tanks

The subject property is known to have contained 7 underground storage tanks. Six of these contained fuels: 2-gasoline, 2-fuel oil, and 2-diesel (see Figure 3). The seventh tank was a holding tank for water from the on-site well. Mr. Northern and Mr. Preonas have stated that the 6 fuel tanks were removed in 1991.

Mr. Northern related the following information concerning the tank removal program. The 6 fuel tanks were removed by WRP & Associates in 1991. WRP did not take confirmatory samples of the soils in the tank excavations when they were backfilled, to confirm that soils were not contaminated with fuel. The Ohio Department of Commerce, Division of the State Fire Marshal, Bureau of Underground Storage Tank Regulation (BUSTR) later required soil sampling with laboratory analysis as a substitute for confirmatory samples. WRP returned to the site to take soil samples, and submitted the results to BUSTR. The BUSTR letter in Appendix C, dated November 9, 1994, indicates that the Bureau is satisfied that soils are not contaminated and no remedial action is required.

Based on the information provided by Mr. Northern and the letter from BUSTR, it appears that the former presence of underground storage tanks has not caused a contamination concern at the Rich Products property.



NOT TO SCALE

URS CONSULTANTS, INC.

SITE LAYOUT
WITH LOCATIONS OF REMOVED TANKS
RICH PRODUCTS, DAYTON, OHIO

FIGURE 3

A-7860

6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on URS's site inspection on April 18 and 19, 1995, and the available information obtained and reviewed for the Rich Products facility and property at 521 Kiser Street in Dayton, OH, URS presents the following conclusions and recommendations:

- It is recommended that the oil-contaminated soil between the DP&L transformer and the west fence be completely excavated for proper disposal. Soil should be excavated until there is no visual evidence or odor of oil, then confirmatory samples should be taken from the sides and bottom of the excavation for laboratory analysis of total petroleum hydrocarbons. If a permitted disposal facility requires laboratory analysis of the soil prior to disposal, then it should be excavated and staged on plastic, and covered with plastic, until disposal arrangements can be made. These activities should be conducted in accordance with the regulations and policies of the Ohio Environmental Protection Agency.

- The residues around the oil drain bucket in Receiving and the waste oil drums outside the west side of the building should be cleaned up. Safety-Kleen should be contacted to pick up the waste oil drums. The empty oil and glycol drums along the south fence line should be removed for proper recycling or disposal.

- If any nonfriable suspected ACM is disturbed in the future through remodeling, maintenance or removal, it is recommended that it first be sampled and analyzed for asbestos content. If it is found to contain asbestos, it should be removed by a certified asbestos abatement contractor in compliance with all federal, state and local regulations, prior to being disturbed.

- While fluorescent light ballasts in production and some support areas of subject building have the potential to contain PCBs, none were observed to be leaking during the site visit. They do not appear to be a significant site contamination concern in their present condition. Disposal of ballasts should be done in accordance with local, state and federal requirements.

7.0 DISCLAIMER

URS's conclusions are based on conditions that existed at the property on April 18 and 19, 1995. Past and present conditions that could not be observed were established on the basis of documents and accounts of personnel interviewed. URS cannot attest to the completeness or accuracy of these accounts.

This report was prepared by URS expressly and exclusively for use by Rich Products Corporation. Except where specifically stated to the contrary, the information contained herein was provided to URS by others and has not been verified independently or otherwise examined to determine its accuracy, completeness or feasibility. In addition, URS may have had to rely upon assumptions, especially as to future conditions and events. Accordingly, neither URS nor any person acting on its behalf: (a) makes any warranty or representation either expressed or implied concerning the usefulness of the information contained in this report, or (b) assumes liabilities with respect to the use of, or for damages resulting from, the use of any information contained in this Environmental Site Assessment (ESA) report. Further, URS cannot promise that any assumed conditions will come to pass.

No one is authorized to rely on this report for any purpose, except to the extent that such reliance is specifically authorized in writing by URS. Any person who intends to take any action which is in any way related to or affected by the information contained herein should independently verify all such information. The report speaks only as of the date issued. URS has no responsibility for updating the information herein, and therefore it should not be assumed that any information contained is this ESA continues to be accurate subsequent to May 15, 1995.

This ESA report has been prepared solely on the basis of readily available visual observation. No demolition or removal by URS has been accomplished to reveal hidden conditions. No testing such as the testing of materials, equipment or systems has been performed to verify current conditions or to predict future performance.

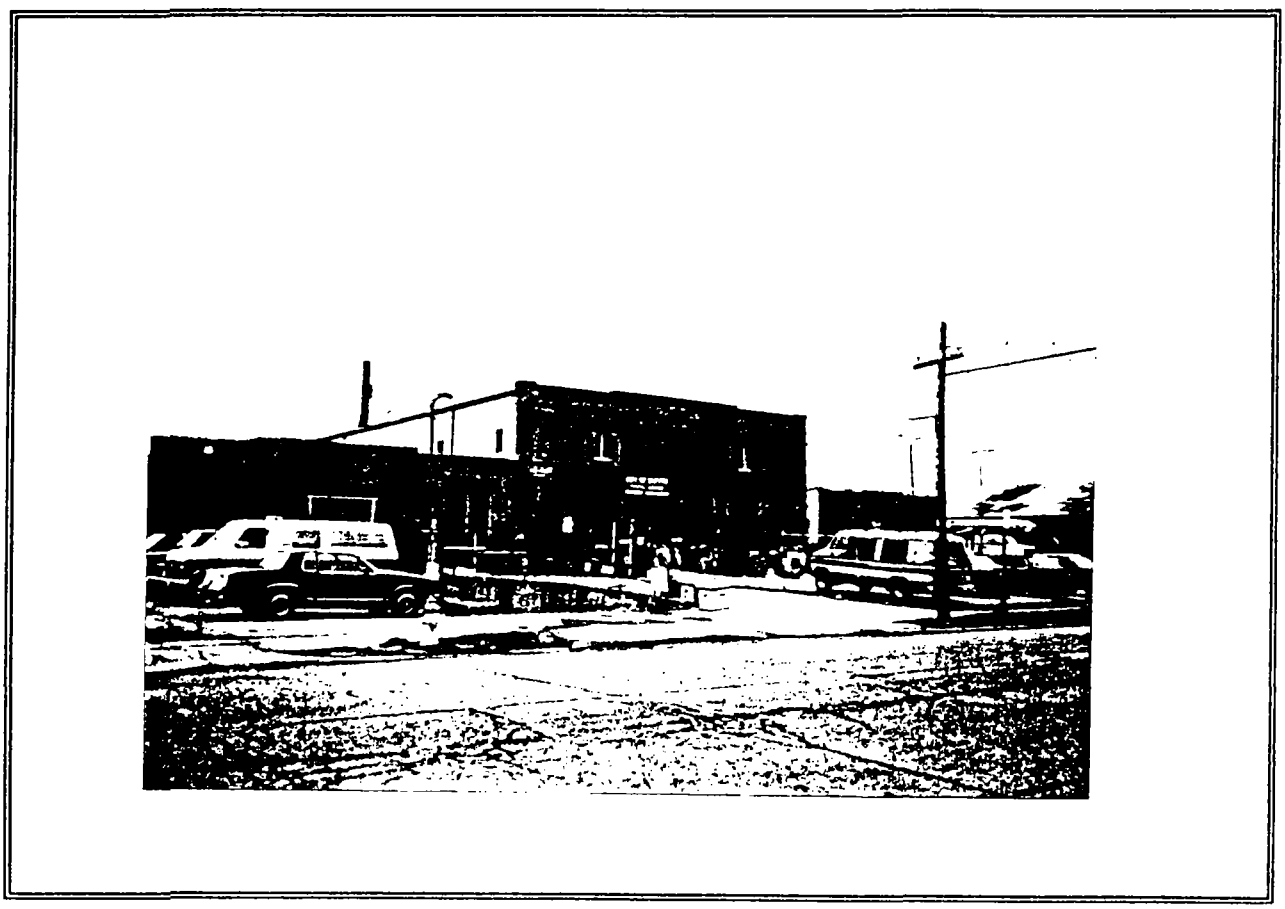
Future regulatory modifications, agency interpretation, or policy changes may affect the compliance status of the property.

A title search, asbestos, indoor air quality, and wetlands surveys were not requested as part of this project. These topics require specialized expertise. A specialty survey can be performed upon request.

Appendix A

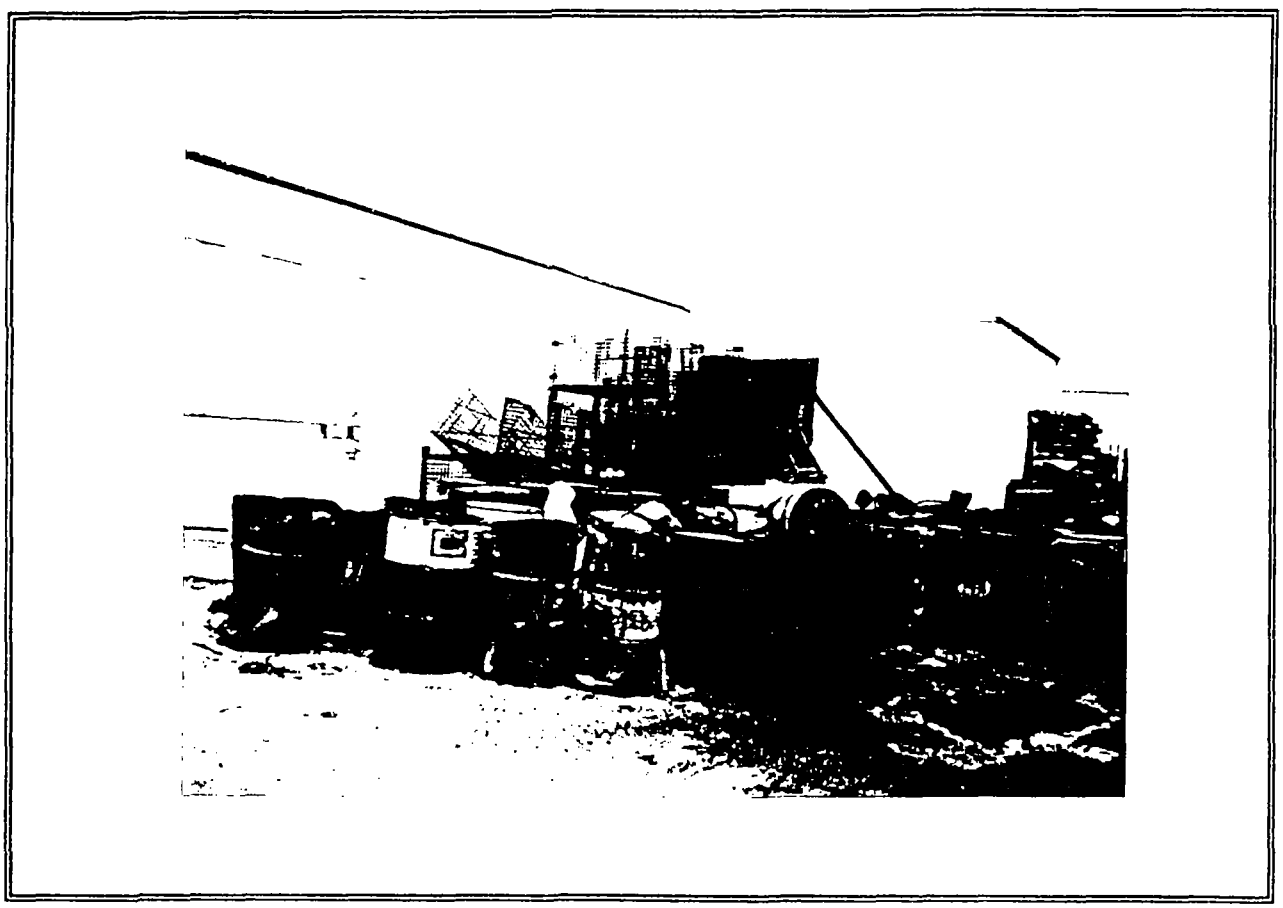
Site Photographs

PHOTOGRAPH 1: East side of building.

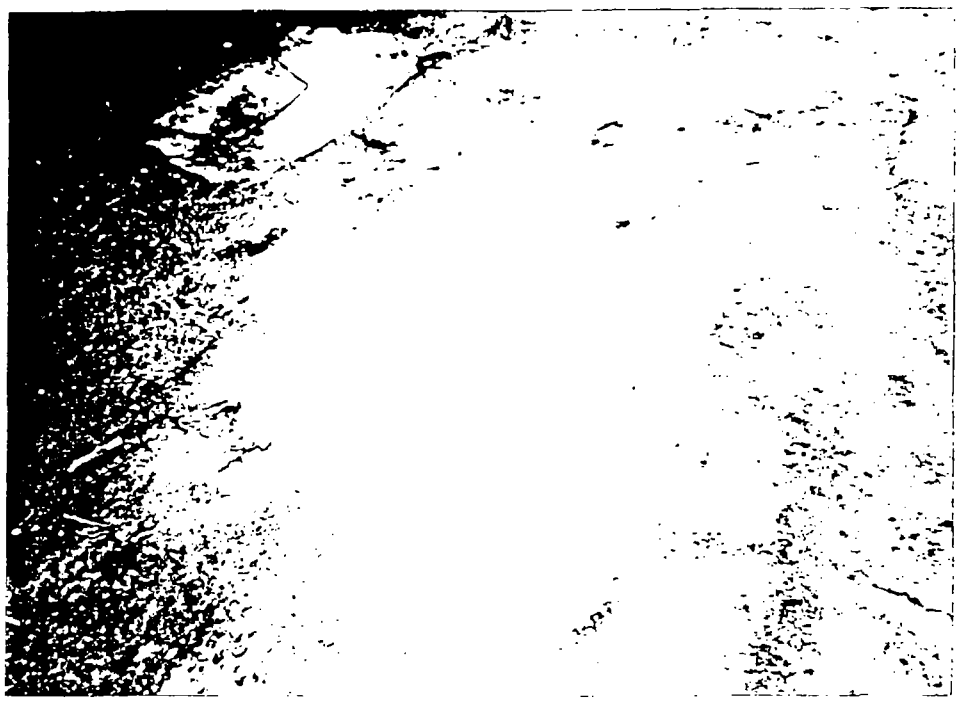


PHOTOGRAPH 2: City of Dayton building to the east.

PHOTOGRAPH 3: Vacant land to the south.



PHOTOGRAPH 4: Drums on Yoder Die Casting site to the north of the subject site.



PHOTOGRAPH 5: Sheen on puddle near Yoder site drums.

PHOTOGRAPH 6: Sheen on puddles along Leonhard St.

Appendix B

Chemical Product Lists

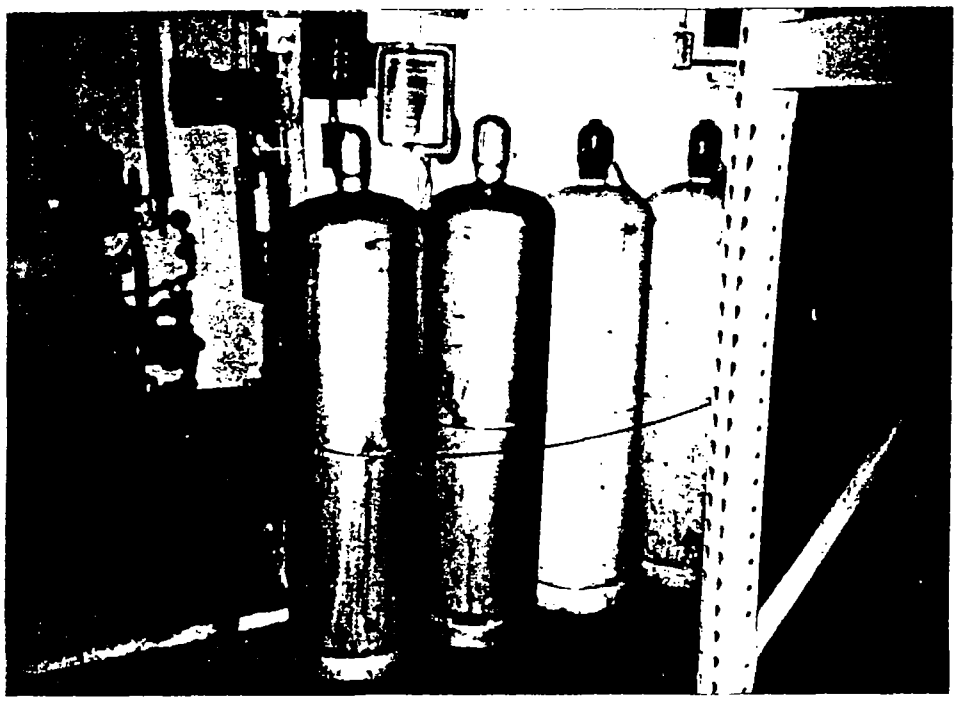
SANITATION MSDS

PRODUCT NAME	STORED
AERO V-34 INSECT 5# CYLINDER ABC DRY CHEMICAL POWDER	S.R.
AERO WASP & HORNET SPRAY	S.R.
ALKALINE DETERGENT PMMC	S.R.
BLEACH A-1	S.R.
BOWL PHOS-KLEEN	S.R.
CALICUM CHLORIDE	S.R.
CLEANER GLASS & PLASTIC ANTI-STAT	S.R.
DEODORANT BOWL CLIP LEMON	S.R.
DETERGENT HAND DISH LEMON	S.R.
DIVERFOAM PLUS, LIQUID CHLORINATED CLEANER	S.R.
DEODORANT CHERRY CONCENTRATED GEL	S.R.
ETHYL ACETATE REAGENT	S.R.
EXCELCIDE DIAZINON PYRETHRIN SPRAY	S.R.
EXCELCIDE RESIFUME	S.R.
FILM AND SCALE REMOVER	S.R.
FILM & SCALE REMOVER, ACID METAL CLEANER	S.R.
FORTI-FIED	S.R.
GENERAL PURPOSE LIQUID CLEANER	S.R.
GLASS AND PLASTIC CLEANER ANTI-STAT	S.R.
HANDY HAND, ST. CLAIR	S.R.
LIQUID DIPAK	S.R.
LIQUID MANUAL ACID CLEANER, LIQUID ACID	S.R.
LIQUID SPEC-TAK #2 - LIQUID ALKALINE CLEANER	S.R.
OAKITE LIQUACID, 72-E-19	S.R.
PETROL GEL	S.R.
PHOS-KLEEN, ST. CLAIR	S.R.
PINK ANGEL	S.R.
QUORUM ORANGE, ALKALINE DETERGENT	S.R.
QUORUM PINK, LIQUID GENERAL CLEANER	S.R.
SALUTE, CLORINATED ALKALINE DETERGENT	S.R.
SAND SILICA WHITE	S.R.
SHUREGEL 3, ALKALINE GEL CLEANER	S.R.
SOAP LIQUID DIAL LITER	S.R.
SPARTEC, SANITIZER & DEODORIZER/DISINFECTANT	S.R.

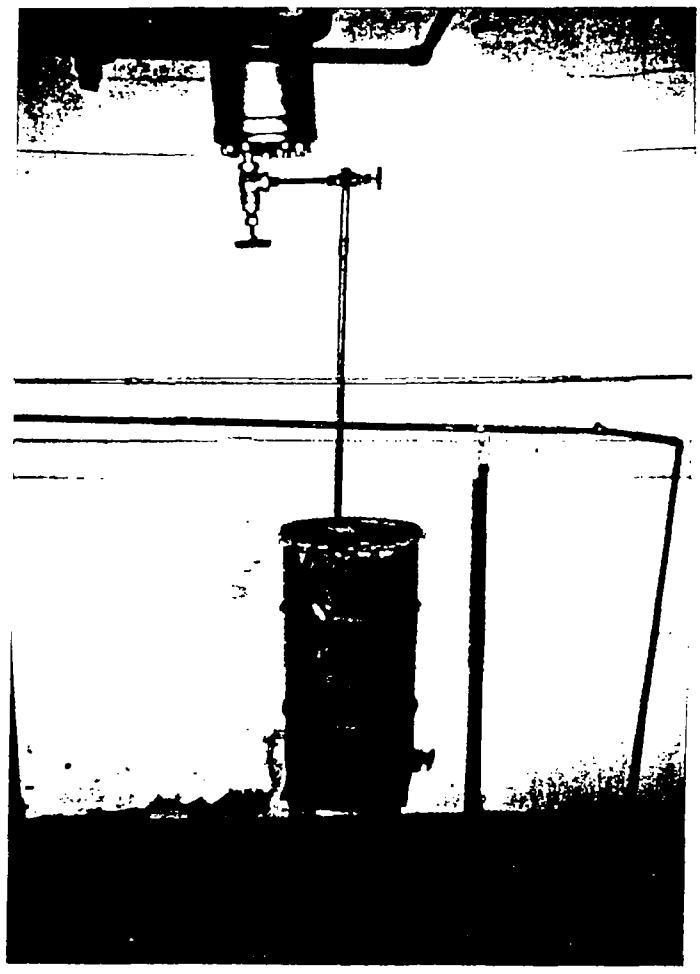
UPDATED AUGUST 19, 1994

MAINTENANCE MSDS

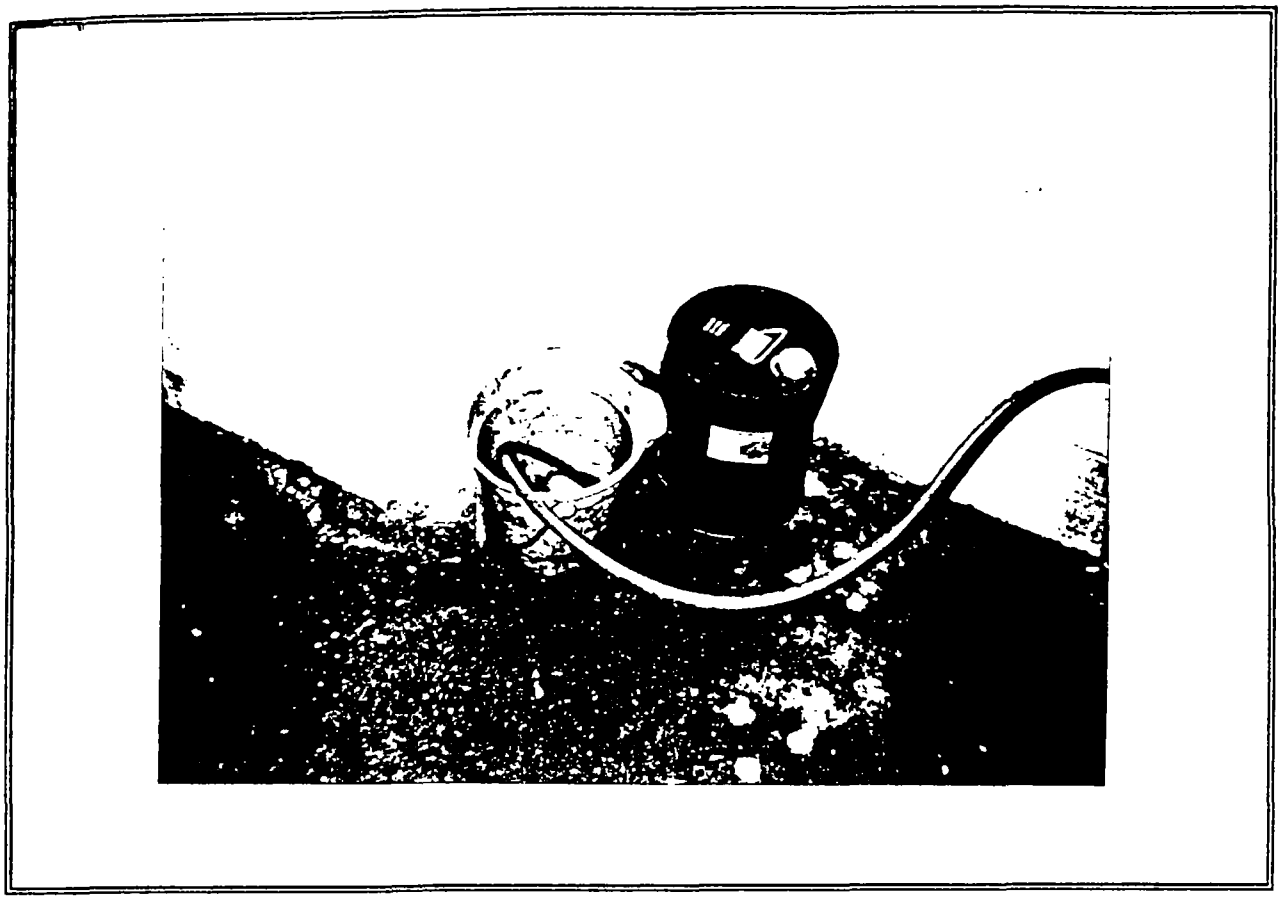
PRODUCT NAME	STORED
ABC DRY CHEMICAL POWDER	PLANT
ACETYLENE	OIL CAGE
ACRYLIC LATEX COATING, WATER BASED PRIMER	OIL CAGE
ADHESIVE	M. SHOP
AMMONIA, ANHYDROUS	RECEIVING
BUCKEYE CLEANER WORKOUT	M. SHOP
CLYSAR, SHRINK FILM	RECEIVING
CLYSAR, SHRINK FILM EHC.	RECEIVING
CONTACT CLEANER 2000	TOOL CAGE
CUTTING OIL C-3062	OIL CAGE
ENSIGN 318 VERSATOIL, AEROSOL	OIL CAGE
ENSIGH 318 VERSATOIL	OIL CAGE
EPO RESURFACER	OIL CAGE
GREASE, 84 EP-2	OIL CAGE
GREASE, WHITE COTE	OIL CAGE
METHOCEL	
MICROLITE, PLAIN	Equip#. 76214
MICROPOLY H-1	IN BEARINGS
NIAGARA NO FROST LV-2	NIAGARA NOFROST
PENNGUARD (R) ADHESIVE MEMBRANE-PART A	FLOORS
PENNGUARD (R) ADHESIVE MEMBRANE KIT	FLOORS
PENNGUARD (R) PRIMER WASH PRIMER-PART A	FLOORS
PENNGUARD (R) PRIMER WASH PRIMER-PART A	FLOORS
PETROL-GEL	SANITAT ROOM
PHOSPHORIC ACID	OIL CAGE
PRIMER SEALER, BASE, MORGAN	OIL CAGE
SANI-LUBE	TOOL CAGE
SILICONE FLUID	TOOL CAGE
SMOKE TUBES	MAINT. OFFICE
URETHANE ASPHALT HARDENER-PART B	OIL CAGE



PHOTOGRAPH 7: Ammonia cylinders in receiving department.



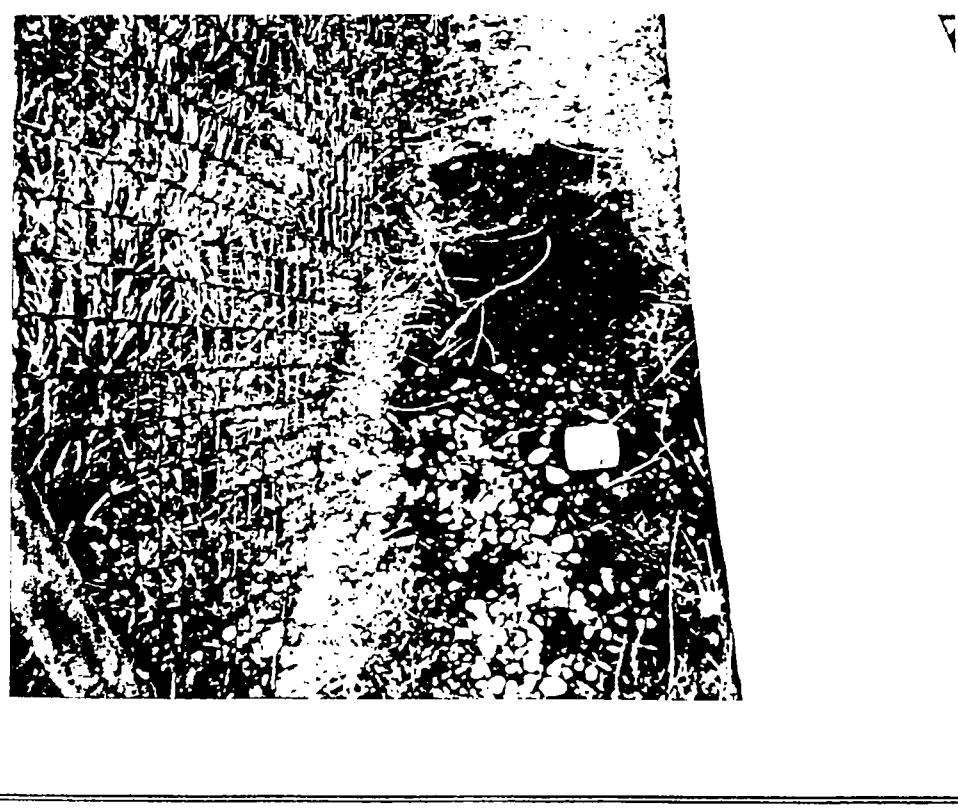
PHOTOGRAPH 8: Waste oil collection in Receiving Department.



PHOTOGRAPH 9: Waste oil collection in the Receiving Department

PHOTOGRAPH 10: Waste oil drums and spillage outside Receiving Department.

PHOTOGRAPH 11: Waste oil drums spillage.



PHOTOGRAPH 12: Oil spill and filter behind transformer, along west fence.

W. L. GORE & ASSOCIATES, INC.
100 CHESAPEAKE BLVD., P.O. BOX 10 • ELKTON, MARYLAND 21922-0010 • PHONE: 410/392-7600
FAX: 410/506-4780

GORE-SORBER® EXPLORATION SURVEY
GORE-SORBER® SCREENING SURVEY

GORE-SORBER® Screening Survey
Draft Report

DaimlerChrysler
Dayton, OH

November 24, 1998

Gore Production Order No. 098063

Prepared For:
Leggette, Brashears & Graham
1210 West County Road East, Suite 700
St. Paul, MN 55112

W.L. Gore & Associates, Inc.

Written/Submitted by:
Ray Fenstermacher, P.G., Project Manager

Reviewed/Approved by:
Mark J. Wrigley, P.G. Project Manager

Analytical Data Reviewed by:
Kelly Renee Scott, Chemist

DRAFT

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DRAFT

GORE-SORBER® Screening Survey
Final Report

REPORT DATE: November 24, 1998 **AUTHOR:** RFF

SITE INFORMATION

Site Reference: DaimlerChrysler, Dayton, OH
Customer Purchase Order Number: 3CHRY4 DAYTON
Gore Production Order Number: 098063 **Gore Site Code:** ATX

FIELD PROCEDURES

 # Modules shipped: 105
Installation Date(s): 10/13/98 **# Modules Installed:** 95
Field work performed by: Leggette, Brashears & Graham

Retrieval date(s): 10/27/98 **Exposure Time:** 14 [days]
 # Modules Retrieved: 93 **# Trip Blanks Returned:** 4 *
 # Modules Lost in Field: 2 **# Unused Modules Returned:** 6

Date/Time Received by Gore: 10/28/98 @ 12:00 PM **By:** TC
Recorded Cooler/Water Temperature Control Blank temperature: 3.8 and 2.3 [°C]
Chain of Custody Form attached: √
Chain of Custody discrepancies: None
Comments: No trip blank samples were designated on the chain of custody. As such, four unused modules returned from the field were selected and analyzed as trip blanks. Module 169986 contained no sorbers due to field damage.

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GORE-SORBER® Screening Survey
Final Report

ANALYTICAL PROCEDURES

W.L. Gore & Associates' Screening Module Laboratory operates under the guidelines of its Quality Assurance Manual, Operating Procedures and Methods. The quality assurance program is consistent with Good Laboratory Practices (GLP) and ISO Guide 25, "General Requirements for the Competence of Calibration and Testing Laboratories", third edition, 1990. The Laboratory is audited regularly by a quality system design, development and auditing company.

Instrumentation consists of state of the art gas chromatographs equipped with mass selective detectors, coupled with automated thermal desorption units. Sample preparation simply involves cutting the tip off the bottom of the sample module and transferring one or more exposed sorbent containers (sorbers, each containing 40mg of a suitable granular adsorbent) to a thermal desorption tube for analysis. Sorbers remain clean and protected from dirt, soil, and ground water by the insertion/retrieval cord, and require no further sample preparation. Samples remain frozen until analysis and unanalyzed sorbers are archived in the freezer for potential future analysis.

Analytical Method Quality Assurance:
The analytical method employed is a modified EPA method 8260A/8270B. Before each run sequence, two instrument blanks, a sorber containing 5µg BFB (Bromofluorobenzene), and a method blank are analyzed. The BFB mass spectra must meet the criteria set forth in the method before samples can be analyzed. A method blank and a sorber containing BFB is also analyzed after every 30 samples and/or trip blanks. Standards containing the selected target compounds at three calibration levels of 5, 20, and 50µg are analyzed at the beginning of each run. The criterion for each target compound is less than 35% RSD (relative standard deviation). If this criterion is not met for any target compound, the analyst has the option of generating second- or third-order standard curves, as appropriate. A second-source reference standard, at a level of 10µg per target compound, is analyzed after every ten samples and/or trip blanks, and at the end of the run sequence. Positive identification of target compounds is determined by 1) the presence of the target ion and at least two secondary ions; 2) retention time versus reference standard; and, 3) the analyst's judgment.

NOTE: All data have been archived. Any replicate sorbers not used in the initial analysis will be discarded fifteen (15) days from the date of analysis.

Laboratory analysis: thermal desorption, gas chromatography, mass selective detection
Quality Assurance Level: 2 (ANA-4/VCA1)
Instrument ID: # 3 **Chemist:** KRS **Data Subdirectory:** 098063
Compounds/mixtures requested: Gore Chlorinated VOC Target Compounds (A10) plus vinyl chloride.
Deviations from Standard Method: None
Comments: Soil vapor analytes and abbreviations are tabulated in the Data Table Key (page 6).

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GORE-SORBER® Screening Survey
Final Report

DATA TABULATION

 # CONTOUR MAPS ENCLOSED: Three (3) B-sized color contour maps
LIST OF MAPS ENCLOSED:

- Tetrachloroethene (PCE)
- Trichloroethene (TCE)
- 1,1,1-Trichloroethane (111TCA)

NOTE: All data values presented in Appendix A represent masses of compound(s) desorbed from the GORE-SORBER Screening Modules received and analyzed by W.L. Gore, as identified in the Chain of Custody (Appendix A). The measurement traceability and instrument performance are reproducible and accurate for the measurement process documented. Semi-quantitation of the compound mass is based on either a single-level (QA Level 1) or three-level (QA Level 2) standard calibration.

General Comments:

- This survey reports soil gas mass levels present in the vapor phase. Vapors are subject to a variety of attenuation factors during migration away from the source concentration to the module. Thus, mass levels reported from the module will often be less than concentrations reported in soil and groundwater matrix data. In most instances, the soil gas masses reported on the modules compare favorably with concentrations reported in the soil or groundwater (e.g., where soil gas levels are reported at greater levels relative to other sampled locations on the site, matrix data should reveal the same pattern, and vice versa). However, due to a variety of factors, a perfect comparison between matrix data and soil gas levels can rarely be achieved.
- Soil gas signals reported by this method cannot be identified to soil adsorbed, groundwater, and/or separate-phase material. The soil gas signal reported from each module can evolve from all of these sources. Differentiation between soil and groundwater signals can only be achieved with prior knowledge of the site history (i.e., the site is known to have groundwater concerns only).
- QA/QC trip blank modules were provided to document any occurrence of constituents that were not part of the soil gas signal of interest (i.e., impact during module shipment, installation and retrieval, and storage). The trip blanks are identically manufactured and packaged soil gas modules to those modules placed in the subsurface. However, the trip blanks remain unopened during all phases of the soil gas survey. Levels reported on the trip blanks may indicate potential impact to modules other than the source of interest.

GORE-SORBER® Screening Survey
Final Report

- Unresolved peak envelopes (UPEs) are represented as a series of compound peaks clustered together around a central GC elution time in the total ion chromatogram. Typically, UPEs are indicative of complex fluid mixtures that are present in the subsurface. UPEs observed early in the chromatogram are considered to indicate the presence of more volatile fluids, while UPEs observed later in the chromatogram may indicate the presence of less volatile fluids. Multiple UPEs may indicate the presence of multiple complex fluids.

Project Specific Comments:

- The minimum (gray) contour level, for each mapped analyte or group of analytes, was set at the maximum blank level observed or the MDL, whichever was greater. The maximum contour level was set at the maximum value observed.
- Stacked total ion chromatograms (TIC's) are included in Appendix A. The last four digits of each module number are incorporated into the TIC identification (e.g.: ATX9953TC.D represents module #169953).
- No target compounds were reported on any of the trip blanks or method blanks, suggesting that the levels reported from the field-exposed modules probably originated from the field-exposure and are not a result of any trip-related or laboratory-related incident.
- The spatial distribution of the modules in this survey were located in linear fashion along several of the roads in this area. The interpretation was limited to an approximate distance of 50 feet from most of the modules. The data as illustrated on these maps are extrapolated between module locations, and confidence in the interpretation decreases with greater distances from the module locations.
- Several target compounds were reported from these survey results and most notably are the compounds that were plotted as color contour maps. Moderate to high levels of TCE were reported from these data, and the greatest mass appears around module location 170004, '005, '006, '007 and '008. Moderate to high levels of PCE were reported from several module locations, although not necessarily contiguous. Module locations 169978, 170026 and 170016 revealed the greatest mass of PCE. The 111TCA soil gas plume exhibits the greatest mass around module locations 170002, '004, and '008.
- The soil gas plume appears to extend into unsampled areas. If the objective of the soil gas survey was to delineate the nature and extent of the contamination, then additional soil gas sampling is recommended in those areas where the color contours appear to extend into unsampled areas.

GORE-SORBER® Screening Survey
Final Report

KEY TO DATA TABLE
DaimlerChrysler, Dayton, OH

UNITS

µg	micrograms (per sorber), reported for compounds
MDL	method detection limit
bdl	below detection limit
nd	non-detect

ANALYTES

ct12DCE	cis- & trans-1,2-dichloroethene
t12DCE	trans-1,2-dichloroethene
c12DCE	cis-1,2-dichloroethene
VC	vinyl chloride
11DCE	1,1-dichloroethene
11DCA	1,1-dichloroethane
$CHCl_3$	chloroform
111TCA	1,1,1-trichloroethane
12DCA	1,2-dichloroethane
CCl_4	carbon tetrachloride
TCE	trichloroethene
112TCA	1,1,2-trichloroethane
PCE	tetrachloroethene
ClBENZ	chlorobenzene
1112TetCA	1,1,1,2-tetrachloroethane
1122TetCA	1,1,2,2-tetrachloroethane
13DCB	1,3-dichlorobenzene
14DCB	1,4-dichlorobenzene
12DCB	1,2-dichlorobenzene

BLANKS

TBn	unexposed trip blanks, travels with the exposed modules
method blank	QA/QC module, documents analytical conditions during analysis

GORE SORBER SCREENING SURVEY ANALYTICAL RESULTS
LEGETTE, BRASHEARS, AND GRAHAM.
ST. PAUL, MN
GORE CHLORINATED VOC PLUS VINYL CHLORIDE (A10+ VC)
DAYTON THERMAL PRODUCTS, DAYTON, OH
SITE ATX, PRODUCTION ORDER NO. 098063

DATE ALYZED	MODULE NUMBER	ct12DCE, ug	t12DCE, ug	c12DCE, ug	VC, ug	11DCE, ug	11DCA, ug	CHCl3, ug	111TCA, ug	12DCA, ug
	MDL=	0.02	0.03	0.02	0.30	0.03	0.03	0.01	0.03	0.04
0/29/98	169953	nd	nd	nd	nd	nd	nd	0.03	bdl	nd
0/29/98	169954	nd	nd	nd	nd	nd	nd	nd	0.04	nd
0/29/98	169955	nd	nd	nd	nd	nd	nd	nd	0.09	nd
0/29/98	169956	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	169957	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	169958	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	169959	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	169960	nd	nd	nd	nd	nd	nd	0.02	nd	nd
0/29/98	169962	nd	nd	nd	nd	bdl	nd	0.03	0.08	nd
0/29/98	169963	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	169964	nd	nd	nd	nd	nd	nd	0.02	nd	nd
0/29/98	169965	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	169966	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	169967	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	169968	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	169969	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	169970	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	169971	nd	nd	nd	nd	nd	nd	nd	0.03	nd
0/29/98	169972	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	169973	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	169974	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	169975	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	169976	nd	nd	nd	nd	nd	nd	0.02	nd	nd
0/29/98	169977	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	169978	nd	nd	nd	nd	nd	nd	0.04	nd	nd
0/29/98	169979	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	169981	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	169982	nd	nd	nd	nd	nd	nd	0.10	nd	nd
0/29/98	169983	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	169984	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	169985	nd	nd	nd	nd	bdl	nd	nd	0.13	nd
0/29/98	169987	nd	nd	nd	nd	nd	nd	0.02	nd	nd
0/29/98	169988	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	169989	nd	nd	nd	nd	nd	nd	nd	bdl	nd
0/29/98	169990	nd	nd	nd	nd	nd	nd	nd	0.55	nd
0/29/98	169991	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	169992	nd	nd	nd	nd	nd	nd	0.02	0.03	nd
0/29/98	169993	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	169994	nd	nd	nd	nd	nd	nd	0.03	nd	nd
0/30/98	169995	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/30/98	169998	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/30/98	169999	nd	nd	nd	nd	nd	nd	nd	0.06	nd
0/30/98	170000	nd	nd	nd	nd	0.03	nd	nd	0.14	nd
0/30/98	170001	nd	nd	nd	nd	nd	nd	nd	0.38	nd
0/30/98	170002	0.07	bdl	0.05	nd	0.04	nd	nd	0.92	bdl
0/30/98	170003	nd	nd	nd	nd	nd	nd	nd	0.08	nd
0/30/98	170004	0.50	0.16	0.34	nd	0.07	0.09	0.01	2.11	0.10
0/30/98	170005	nd	nd	nd	nd	nd	nd	nd	0.18	nd
0/30/98	170006	0.17	0.05	0.12	nd	0.06	nd	nd	0.52	nd
0/30/98	170007	nd	nd	nd	nd	nd	nd	nd	0.03	nd
0/30/98	170008	1.17	0.17	1.00	nd	0.06	nd	0.30	0.74	bdl
0/30/98	170009	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/30/98	170010	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/30/98	170011	0.11	0.03	0.08	nd	0.04	nd	0.12	0.70	bdl

GORE SORBER SCREENING SURVEY ANALYTICAL RESULTS
LEGETTE, BRASHEARS, AND GRAHAM,
ST. PAUL, MN
GORE CHLORINATED VOC PLUS VINYL CHLORIDE (A10+ VC)
DAYTON THERMAL PRODUCTS, DAYTON, OH
SITE ATX, PRODUCTION ORDER NO. 098063

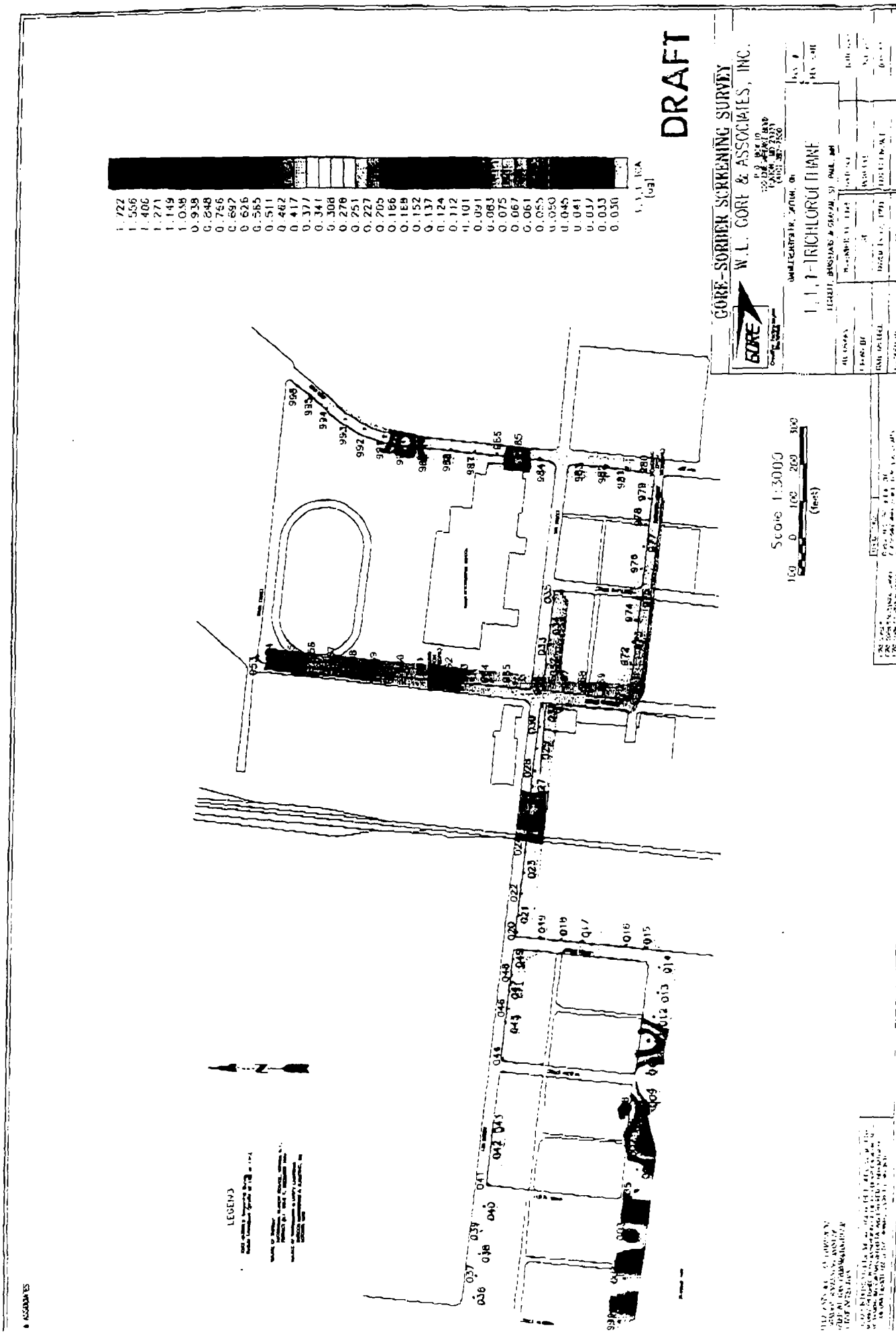
DATE ALYZED	MODULE NUMBER	ct12DCE, ug	t12DCE, ug	c12DCE, ug	VC, ug	11DCE, ug	11DCA, ug	CHCl3, ug	111TCA, ug	12DCA, ug
	MDL=	0.02	0.03	0.02	0.30	0.03	0.03	0.01	0.03	0.04
0/30/98	170012	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/30/98	170013	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/30/98	170014	nd	nd	nd	nd	nd	nd	0.61	nd	nd
0/30/98	170015	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/30/98	170016	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/30/98	170017	nd	nd	nd	nd	nd	nd	0.05	nd	nd
0/30/98	170018	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/30/98	170019	nd	nd	nd	nd	nd	nd	0.02	nd	nd
0/30/98	170020	nd	nd	nd	nd	nd	nd	0.06	nd	nd
0/30/98	170021	nd	nd	nd	nd	nd	nd	0.02	nd	nd
0/30/98	170022	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/30/98	170023	nd	nd	nd	nd	nd	nd	0.02	nd	nd
0/30/98	170024	nd	nd	nd	nd	nd	nd	0.04	nd	nd
0/30/98	170026	nd	nd	nd	nd	0.03	nd	nd	0.37	nd
0/30/98	170027	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/30/98	170028	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/30/98	170029	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/30/98	170030	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/30/98	170031	nd	nd	nd	nd	nd	nd	0.02	nd	nd
0/30/98	170032	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/30/98	170033	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/30/98	170034	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/30/98	170035	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/30/98	170036	nd	nd	nd	nd	nd	nd	0.04	nd	nd
0/30/98	170037	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/30/98	170038	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/31/98	170039	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/31/98	170040	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/31/98	170041	nd	nd	nd	nd	nd	nd	nd	0.03	nd
0/31/98	170042	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/31/98	170043	0.04	nd	0.04	nd	nd	nd	nd	nd	bdl
0/31/98	170044	nd	nd	nd	nd	nd	nd	0.03	nd	nd
0/31/98	170045	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/31/98	170046	nd	nd	nd	nd	nd	nd	0.07	nd	nd
0/31/98	170047	nd	nd	nd	nd	nd	nd	0.15	nd	nd
0/31/98	170048	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/31/98	170049	nd	nd	nd	nd	nd	nd	0.37	nd	nd
1/11/98	TB1 - 170050	nd	nd	nd	nd	nd	nd	nd	nd	nd
1/11/98	TB2 - 170051	nd	nd	nd	nd	nd	nd	nd	nd	nd
1/11/98	TB3 - 170052	nd	nd	nd	nd	nd	nd	nd	nd	nd
1/11/98	TB4 - 170053	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/28/98	method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/29/98	method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/30/98	method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd
0/31/98	method blank	nd	nd	nd	nd	nd	nd	nd	nd	nd

GORE SORBER SCREENING SURVEY ANALYTICAL RESULTS
LEGETTE, BRASHEARS, AND GRAHAM,
ST. PAUL, MN
GORE CHLORINATED VOC PLUS VINYL CHLORIDE (A10+ VC)
DAYTON THERMAL PRODUCTS, DAYTON, OH
SITE ATX, PRODUCTION ORDER NO. 098063

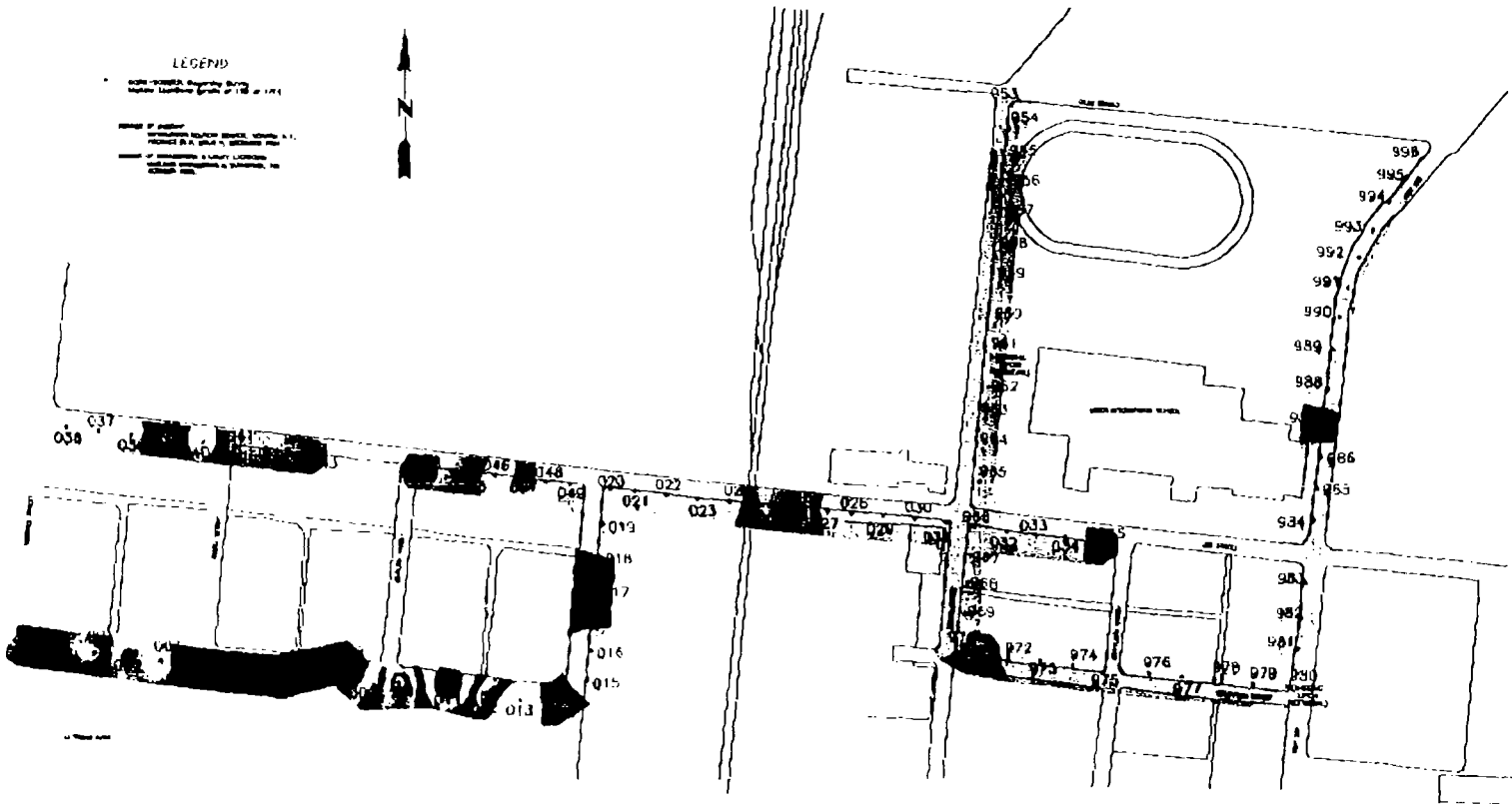
LE ER	CCl4, ug	TCE, ug	112TCA, ug	PCE, ug	ClBENZ, ug	1112TetCA, ug	1122TetCA, ug	13DCB, ug	14DCB, ug	12DCB, ug
=	0.02	0.03	0.03	0.03	0.04	0.03	0.02	0.01	0.02	0.02
53	nd	bdl	nd	nd	nd	nd	nd	0.01	bdl	bdl
54	nd	nd	nd	bdl	nd	nd	nd	nd	bdl	bdl
55	nd	nd	nd	0.18	nd	nd	nd	nd	nd	nd
56	nd	nd	nd	0.04	nd	nd	nd	nd	nd	nd
57	nd	nd	nd	0.29	nd	nd	nd	nd	nd	nd
58	nd	nd	nd	0.13	nd	nd	nd	nd	nd	nd
59	nd	nd	nd	0.09	nd	nd	nd	nd	nd	nd
60	nd	nd	nd	0.61	nd	nd	nd	nd	nd	nd
62	nd	bdl	nd	0.20	nd	nd	nd	nd	nd	nd
63	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
64	nd	nd	nd	bdl	nd	nd	nd	nd	nd	nd
65	nd	nd	nd	0.03	nd	nd	nd	nd	nd	nd
66	nd	nd	nd	bdl	nd	nd	nd	nd	nd	nd
67	nd	nd	nd	0.03	nd	nd	nd	nd	nd	nd
68	nd	nd	nd	0.06	nd	nd	nd	nd	nd	nd
69	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
970	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
971	nd	1.95	nd	nd	nd	nd	nd	nd	nd	nd
972	nd	nd	nd	bdl	nd	nd	nd	nd	nd	nd
973	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
974	nd	nd	nd	0.03	nd	nd	nd	nd	nd	nd
975	nd	nd	nd	bdl	nd	nd	nd	nd	nd	nd
976	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
977	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
978	nd	nd	nd	4.73	nd	nd	nd	nd	nd	nd
979	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
981	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
982	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
983	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
984	nd	nd	nd	0.11	nd	nd	nd	nd	nd	nd
985	nd	nd	nd	0.04	nd	nd	nd	nd	nd	nd
987	nd	0.12	nd	0.07	nd	nd	nd	nd	nd	nd
988	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
989	nd	nd	nd	0.03	nd	nd	nd	nd	nd	nd
990	nd	nd	nd	bdl	nd	nd	nd	nd	nd	nd
991	nd	nd	nd	bdl	nd	nd	nd	nd	nd	nd
992	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
993	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
994	nd	bdl	nd	0.03	nd	nd	nd	nd	nd	nd
995	nd	nd	nd	bdl	nd	nd	nd	nd	nd	nd
998	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
999	nd	0.93	nd	0.06	nd	nd	nd	nd	nd	nd
0000	nd	0.38	nd	bdl	nd	nd	nd	nd	nd	nd
0001	nd	0.16	nd	0.04	nd	nd	nd	nd	nd	nd
0002	nd	21.48	nd	0.15	nd	nd	nd	nd	nd	nd
0003	nd	1.62	nd	0.03	nd	nd	nd	nd	nd	nd
0004	nd	110.76	nd	0.30	nd	nd	nd	nd	nd	nd
0005	nd	12.32	nd	0.10	nd	nd	nd	nd	nd	nd
0006	nd	123.03	nd	0.08	nd	nd	nd	nd	nd	nd
0007	nd	58.57	nd	0.03	nd	nd	nd	nd	nd	nd
0008	nd	183.44	nd	0.07	nd	nd	nd	nd	nd	nd
0009	nd	2.84	nd	nd	nd	nd	nd	nd	nd	nd
0010	nd	nd	nd	0.06	nd	nd	nd	nd	nd	nd
0011	nd	164.59	nd	1.32	nd	nd	nd	nd	nd	nd

GORE SORBER SCREENING SURVEY ANALYTICAL RESULTS
LEGETTE, BRASHEARS, AND GRAHAM,
ST. PAUL, MN
GORE CHLORINATED VOC PLUS VINYL CHLORIDE (A10+ VC)
DAYTON THERMAL PRODUCTS, DAYTON, OH
SITE ATX, PRODUCTION ORDER NO. 098063

MPLE BER	CCl4, ug	TCE, ug	112TCA, ug	PCE, ug	ClBENZ, ug	1112TetCA, ug	1122TetCA, ug	13DCB, ug	14DCB, ug	12DCB, ug
L=	0.02	0.03	0.03	0.03	0.04	0.03	0.02	0.01	0.02	0.02
012	nd	0.08	nd	0.35	nd	nd	nd	nd	nd	nd
013	nd	bdl	nd	0.17	nd	nd	nd	nd	nd	nd
014	nd	0.10	nd	0.15	nd	nd	nd	nd	nd	nd
015	nd	nd	nd	0.07	nd	nd	nd	nd	nd	nd
016	nd	bdl	nd	2.04	nd	nd	nd	nd	nd	nd
017	nd	0.05	nd	0.11	nd	nd	nd	nd	nd	nd
018	nd	0.03	nd	0.10	nd	nd	nd	nd	nd	nd
019	nd	bdl	nd	0.03	nd	nd	nd	nd	nd	nd
020	nd	bdl	nd	0.03	nd	nd	nd	nd	nd	nd
021	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
022	nd	nd	nd	bdl	nd	nd	nd	nd	nd	nd
023	nd	nd	nd	bdl	nd	nd	nd	nd	nd	nd
024	nd	nd	nd	0.06	nd	nd	nd	nd	nd	nd
026	nd	1.06	nd	6.79	nd	nd	nd	nd	nd	nd
027	nd	nd	nd	0.12	nd	nd	nd	nd	nd	nd
028	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
029	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
030	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
031	nd	bdl	nd	bdl	nd	nd	nd	nd	nd	nd
032	nd	nd	nd	bdl	nd	nd	nd	nd	nd	nd
033	nd	nd	nd	bdl	nd	nd	nd	nd	nd	nd
034	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
035	nd	0.11	nd	nd	nd	nd	nd	nd	nd	nd
036	nd	0.03	nd	nd	nd	nd	nd	nd	nd	nd
037	nd	nd	nd	bdl	nd	nd	nd	nd	nd	nd
038	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
039	nd	0.21	nd	0.04	nd	nd	nd	nd	nd	nd
040	nd	nd	nd	bdl	nd	nd	nd	nd	nd	nd
041	nd	0.22	nd	0.09	nd	nd	nd	nd	nd	nd
042	nd	0.17	nd	bdl	nd	nd	nd	nd	nd	nd
043	nd	0.06	0.06	0.05	nd	nd	0.27	nd	nd	nd
044	nd	0.62	nd	0.04	nd	nd	nd	nd	nd	nd
045	nd	0.05	nd	bdl	nd	nd	nd	nd	nd	nd
046	nd	nd	nd	bdl	nd	nd	nd	nd	nd	nd
047	nd	0.05	nd	0.05	nd	nd	nd	nd	nd	nd
048	nd	bdl	nd	bdl	nd	nd	nd	nd	nd	nd
049	nd	0.03	nd	0 03	nd	nd	nd	nd	nd	nd
-170050	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
-170051	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
-170052	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
-170053	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
ed blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
ed blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
ed blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
ed blank	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd


DRAFT
GORE-SORBER SCREENING SURVEY
W.L. GORE & ASSOCIATES, INC.
1,1,1-TRICHLOROETHANE
GORE
Scale 1:3000
(feet)
LEGEND

GORE & ASSOCIATES



120.980
98.304
79.878
64.906
52.740
42.855
34.822
28.295
22.992
18.682
15.180
12.335
10.023
8.144
6.618
5.377
4.369
3.550
2.885
2.344
1.905
1.548
1.258
1.022
0.830
0.675
0.548
0.446
0.362
0.294
0.239
0.194
0.158
0.128
0.104
0.085
0.069
0.056
0.045
0.037
0.030

TCE (ug)

Scale 1:3000

100 0 100 200 300

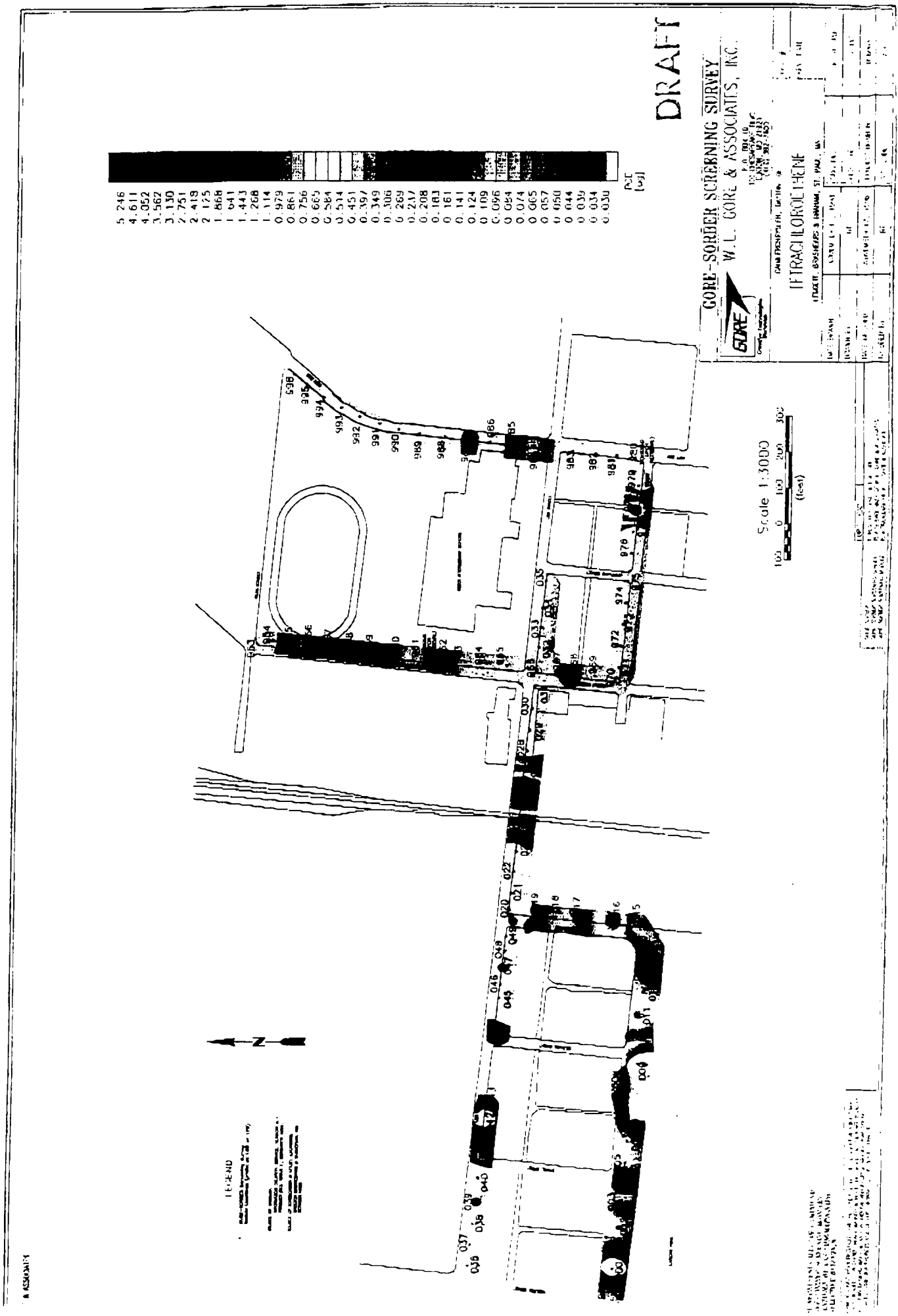
(feet)

DRAFT

GORE-SORBER SCREENING SURVEY

W.L. GORE & ASSOCIATES, INC

TRICHLOROETHENE


DRAFT
GORE-SORBER SCREENING SURVEY
W.L. GORE & ASSOCIATES, INC.
TETRACHLOROETHENE
Scale 1:3000
(feet)
N

ACUSTAR

Inter Company Correspondence

OCT 3 0 1990

To--Name & Department		Telephone	Date
		841-6711	October 26, 1990

			CIMS Number
G. D. McCurly	Plant Manager, Dayton Thermal Products	Acustar	478-00-00
From--Name & Department			CIMS Number
L. L. Blair	Environmental Planning Manager	Acustar	404-01-01

Subject: DEMOLITION OF THE OLD MAXWELL COMPLEX

A serious problem recently developed at the McGraw Glass Plant involving the Michigan Department of Natural Resources (MDNR). The problem involves allegations by the State that McGraw Glass, through the actions of a subcontractor, improperly disposed of contaminated soil. There is a likelihood this alleged event may lead to an enforcement action against the plant. According to the plant, contractors were given verbal instructions to notify plant personnel in the event potentially contaminated soil or materials were found during demolish and excavation. The contractor in question now claims he was not given these instructions.

Since your plant is now in a situation similar to McGraw Glass and in the process of demolishing and replacing an old structure, there is a potential your contractors may also encounter contamination. The purpose of this memo, therefore, is to request your plant to communicate, in writing, clear instructions to the contractors in the event potential contamination is found. These instructions should also include the notification of specific plant personnel. In addition, I would suggest the plant retain a signed copy of the instructions from the contractors.

In response to the above situation, McGraw Glass has also decided to contract the services of a trained on-site environmental field engineer. This person will be responsible for overseeing the demolition of floors and examination of soils as well as any other environmental issues or concerns which may arise. This will include the monitoring, advising, and documentation of all environmentally related construction activities. In the event known or suspected contamination is discovered, steps can be taken to avoid future problems such as possible construction delays. I also suggest your plant evaluate the need for an on-site environmental field engineer.

If I can assist you in any way, please call.

Lou

L. L. Blair

LB12/vl

cc: P. R. Gilezan
J. A. Savage
R. W. Johnson
W. C. Achinger
W. F. Smith

Analysis Report

Lancaster Laboratories

ANALYTICAL RESULTS

Prepared for:

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

248-576-5741

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 875901. Samples arrived at the laboratory on Friday, November 21, 2003. The PO# for this group is N99C403749-B.

Client Description	Lancaster Labs Number
PZ10I-111803 Grab Groundwater Sample	4169611
MW10S-111803 Grab Groundwater Sample	4169612
PZ12D-111803 Grab Groundwater Sample	4169613
PZ12I-111803 Grab Groundwater Sample	4169614
MWA006-111803 Grab Groundwater Sample	4169615
PZ29I-111803 Grab Groundwater Sample	4169616
PZ29D-111803 Grab Groundwater Sample	4169617
MW29S-111803 Grab Groundwater Sample	4169618
MWET3S-111803 Grab Groundwater Sample	4169619
MWET3I-111803 Grab Groundwater Sample	4169620
MWET3D-111803 Unspiked Grab Groundwater Sample	4169621
MW10S-111803-02 Grab Groundwater Sample	4169622
MWC003-111903 Grab Groundwater Sample	4169623
MWC003-111903-02 Grab Groundwater Sample	4169624
MW11S-111903 Grab Groundwater Sample	4169625
MWB003-111903 Grab Groundwater Sample	4169626
PZ9D-111903 Grab Groundwater Sample	4169627
MWB005-111903 Grab Groundwater Sample	4169628
MWA004-111903 Grab Groundwater Sample	4169629
MWB006-111903 Grab Groundwater Sample	4169630
PZ022I-111903 Grab Groundwater Sample	4169631
PZ022I-111903-02 Grab Groundwater Sample	4169632
MWET2S-111903 Grab Groundwater Sample	4169633
MWET2I-111903 Grab Groundwater Sample	4169634
MWET2D-111903 Grab Groundwater Sample	4169635
MWET1S-111903 Grab Groundwater Sample	4169636
MWET1I-111903 Grab Groundwater Sample	4169637
MWET1D-111903 Grab Groundwater Sample	4169638
MW8S-111903 Grab Groundwater Sample	4169639

Acct 10160 # 4165122-53 # 874923

DAIMLERCHRYSLER — Chain-of-Custody

3847 B

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601
Phone Number: (717) 656-2300
Fax Number: (717) 656-2681

Project Name: Dayton Thermal
Site Location: Dayton, OH
Site Code:
RFA Number: ET03076
DaimlerChrysler PM: Gary Stanczuk

Consultant: Earth Tech
Address: 4135 Technology Parkway
Sheboygan, WI 53083
Consultant PM: Rob Stenson
Phone: 920-451-2407 Fax: 920-458-0550

Turn-around Time Request: (circle)
24 calendar hrs.
48 calendar hrs
7 calendar days
14 calendar days

Data Package Deliverables: (circle)
DaimlerChrysler Level 1
DaimlerChrysler Level 2
CLP

Compound List-Parameter/Method/Bottle Type/Preservative

Matrix Codes
S - Soil SW - Surface Water
GW - Groundwater A - Air
Sed. - Sediment
O - Other (specify)

Are aqueous samples field filtered for metals? Yes No

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	TOC	Alkalinity	Total Hardness	COD	Diss. COD				Remarks
TW17-111303	11/13/03	0900	G	GW	3									
TW4-111303		0950			3									
TW8-111303		0940			3									
TW5-111303		1030			3									
TW6-111303		1150			3									
TW3-111303		1440			3									
TW1-111303		1530			3									
TW3-111303		1445			3									
TW23-111303		1625			3									
MW25S-111303		0930			3									

Sampler(s): B Earl & D. December

Cooler ID # Cob501-Co5322-Cob375

Samples Relinquished under Airbill No. 841746122018

Temperature (corrected) 2.5°, 2°, 2.5°C

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact?
[signature]	11/13/03	1830				Yes No
Relinquished by:	Date:	Time:	Received for Laboratory by:	Date:	Time:	Custody Seal Intact?
			[signature]	11-14-03	0910	(Yes) No

Is RFA sampling complete? Yes (No)

DaimlerChrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

Distribution: White copy: Data package Yellow: Retained by laboratory Pink: Retained by sampler

Revision No: 3
Created: July 9, 1999

ACT 10160 # 416 5122 - 53 # 874923

DAIMLERCHRYSLER — Chain-of-Custody — 3848 B

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17601 Phone Number: (717) 656-2300 Fax Number: (717) 656-2681	Project Name: Dayton Thermal Site Location: Dayton, OH Site Code: RFA Number: ET03076 DaimlerChrysler PM: Cory Stanczuk	Consultant: Earth Tech Address: 4135 Technology Parkway Sheboygan, WI 53083 Consultant PM: Rob Stenson Phone: 920-451-2407 Fax: 920-459-0550

Turn-around Time Request: (circle)
24 calendar hrs.
48 calendar hrs
7 calendar days
14 calendar days

Data Package Deliverables: (circle)
DaimlerChrysler Level 1
DaimlerChrysler Level 2
CLP

Compound List-Parameter/Method/Bottle Type/Preservative

Matrix Codes
S - Soil; SW - Surface Water; GW - Groundwater; A - Air; Sed. - Sediment; O - Other (specify)

Are aqueous samples field filtered for metals? Yes No

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	VOC (8260)	Gases (8015)	Mn Fe	Diss Fe Fe2+	SO4	SO3	NO2	NO3	Remarks
MW25S-111303-02	11/3/03	0835	G	GW	3	X								
PZ25D-111303		0830			3	X								
PZ25I-111303		0900			3	X								
PZ24I-111303		1005			3	X								
PZ24D-111303		1010			3	X								
MW24S-111303		1030			3	X								
MW24S-111303-02		1035			3	X								
MW34S-111303		1120			6	X								MS/MSD
PZ39I-111303		1135			3	X								
PZ34D-111303		1200	↓	↓	3	X								

Sampler(s): B Earl & D. December

Cooler ID # C06501, C05322, C06375

Samples Relinquished under Airbill No. 841746722018

Temperature (corrected): 2.5, 2.2, 2.5

	Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact? Yes No
Is RFA sampling complete? Yes (No)	Brian S. Earl	11/13/03	1830				
	Relinquished by:	Date:	Time:	Received for Laboratory by: Kathy Binkley	Date: 11-14-03	Time: 0910	Custody Seal Intact? (Yes) No

DaimlerChrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

Distribution: White copy: Data package Yellow: Retained by laboratory Pink: Retained by sampler

Revision No: 3
Created: July 9, 1999

Acct 10160 #416522-53 #874973

DAIMLERCHRYSLER — Chain-of-Custody

3849 B

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17601 Phone Number (717) 656-2300 Fax Number: (717) 656-2681	Project Name: Dayton Thermal Site Location: Dayton, OH Site Code: RFA Number: ET03076 DaimlerChrysler PM: Gary Staniszuk	Consultant: Earth Tech Address: 4135 Technology Parkway Sheboygan, WI 53083 Consultant PM: Rob Stenson Phone: 920-451-2407 Fax 920-458-0850

Turn-around Time Request: (circle)
24 calendar hrs.
48 calendar hrs
7 calendar days
14 calendar days

Data Package Deliverables: (circle)
DaimlerChrysler Level
DaimlerChrysler Level 2
CLP

Compound List-Parameter/Method/Bottle Type/Preservative

Matrix Codes
S - Soil SW - Surface Water
GW - Groundwater A - Air
Sed. - Sediment
O - Other (specify)

Are aqueous samples field filtered for metals? Yes No

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	TOC	Alkalinity	Total Hardness	COD	Diss COD	Remarks
MW25D-111303-02	11/3/03	0835	G	GW	3						
PZ25D-111303		0830			3						
PZ25I-111303		0900			3						
PZ24I-111303		1005			3						
PZ24D-111303		1010			3						
MW24S-111303		1030			3						
MW24S-111303-02		1035			3						
MW39S-111303		1120			6						MS/MSD
PZ34I-111303		1135			3						
PZ34D-111363		1200			3						

Sampler(s): B Earl & D. December

Cooler ID # C06501 - C05322 - C06375

Samples Relinquished under Airbill No. 841746722018

Temperature (corrected) 2.5°C, 2°, 2.5°C

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact?
[signature]	11/13/03	1830				Yes No
Relinquished by:	Date:	Time:	Received for Laboratory by:	Date:	Time:	Custody Seal Intact?
			Kathy Binkley	11-14-03	0910	(Yes) No

Is RFA sampling complete? Yes (No)

DaimlerChrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

Distribution: White copy: Data package Yellow: Retained by laboratory Pink: Retained by sampler

Revision No: 3
Created: July 9, 1999

Acct 10160 # 416522-53 # F74973

DAIMLERCHRYSLER — Chain-of-Custody — 3850 B

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17601 Phone Number: (717) 656-2300 Fax Number: (717) 656-2681	Project Name: Dayton Thermal Site Location: Dayton, OH Site Code: RFA Number: ET03076 DaimlerChrysler PM: Gary Staniszuk	Consultant: Earth Tech Address: 4135 Technology Parkway Sheboygan, WI 53085 Consultant PM: Rob Stenson Phone: 920-451-2407 Fax:

Turn-around Time Request: (circle)
24 calendar hrs.
48 calendar hrs
7 calendar days
14 calendar days

Data Package Deliverables: (circle)
DaimlerChrysler Level 1
DaimlerChrysler Level 2
CLP

Compound List-Parameter/Method/Bottle Type/Preservative

Matrix Codes
S - Soil SW - Surface Water
GW - Groundwater A - Air
Sed. - Sediment
O - Other (specify)

Are aqueous samples field filtered for metals? Yes No

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	VOC (8260)	Cr(6+) (8015)	Mn Fe	Diss. Fe	Fe 2+	SO_4	SO_3	NO_2	NO_3	Remarks
PZ27D-111303	11/13/03	1445	G	GW	17	X	X	X	X	X	X	X	X	X	
PZ27I-111303	"	1445	"	"	17	X	X	X	X	X	X	X	X	X	
MW27S-111303	"	1550	"	"	17	X	X	X	X	X	X	X	X	X	
MW33S-111303	"	1645	"	"	3	X									
PZ33D-111303	"	1650	"	"	3	X									
PZ33I-111303	"	1715	"	"	3	X									
Trip Blank		—	—	—	1	X									

Sampler(s): B Earl & D December

Cooler ID #: C06501, C05322, C06375

Samples Relinquished under Airbill No: 841746722018

Temperature (corrected): 2.5°, 2°, 2.5°

	Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact?
	B. Earl	11/13/03	1830				Yes No
Is RFA sampling complete? Yes No	Relinquished by:	Date:	Time:	Received for Laboratory by: Kathy Brinkley	Date: 11-14-03	Time: 0910	Custody Seal Intact? (Yes) No

DaimlerChrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

Distribution: White copy: Data package Yellow: Retained by laboratory Pink: Retained by sampler

Revision No. 3
Created July 9, 1999

ACC# 10160 # 4165122-53 # ~~874473(3)~~ #874473 3851 B

DAIMLERCHRYSLER — Chain-of-Custody

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17601 Phone Number: (717) 656-2300 Fax Number: (717) 656-2681	Project Name: Dayton Thermal Site Location: Dayton, OH Site Code: RFA Number: ET03076 DaimlerChrysler PM: Gary Stanczuk	Consultant: Earth Tech Address: 4135 Technology Parkway Sheboygan, WI 53085 Consultant PM: Rob Stenson Phone: 920-451-2407 Fax:

Turn-around Time Request: (circle)
24 calendar hrs.
48 calendar hrs
7 calendar days
14 calendar days

Data Package Deliverables: (circle)
DaimlerChrysler Level 1
DaimlerChrysler Level 2
CLP

Matrix Codes
S - Soil SW - Surface Water
GW - Groundwater A - Air
Sed. - Sediment
O - Other (specify)

Are aqueous samples field filtered for metals? Yes No

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	TOC	Alkalinity	Total Hardness	COD	Diss COD	Remarks
PZ27D-111303	11/13/03	1445	G	GW	17	X	X	X	X	X	
PZ27I-111303		1445			17	X	X	X	X	X	
MW27S-111303		1550			17	X	X	X	X	X	
MW33S-111303		1645			3	~~X~~ BJ4					
PZ33D-111303		1650			3	~~X~~ BJ4					
PZ33I-111303		1715			3	~~X~~ BJ4					
Trip Blank		—	—	—		~~X~~ BJ4					

Sampler(s): B Earl & D. Kemba

Cooler ID # C06501, C05322, C06375

Samples Relinquished under Airbill No. 841746722018

Temperature (corrected) 2.5, 2.5, 2.5

	Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact?
	Brian J. Earl	11/13/03	1830				Yes No
Is RFA sampling complete? Yes (No)	Relinquished by:	Date:	Time:	Received for Laboratory by: Kathy Binkley	Date: 11-14-03	Time: 0910	Custody Seal Intact? (Yes) No

DaimlerChrysler Corporation 800 Chrysler Drive, CIMS 482-00-51 Auburn Hills, Michigan 48326-2757

Distribution: White copy: Data package Yellow: Retained by laboratory Pink: Retained by sampler

Revision No: 3
Created: July 9, 1999

Lancaster Laboratories

ANALYTICAL RESULTS

Prepared for:

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

248-576-5741

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 874973. Samples arrived at the laboratory on Friday, November 14, 2003. The PO# for this group is N99C403749-B.

Client Description	Lancaster Labs Number
TW17-111303 Grab Groundwater Sample	4165122
TW4-111303 Grab Groundwater Sample	4165123
TW8-111303 Grab Groundwater Sample	4165124
TW5-111303 Grab Groundwater Sample	4165125
TW6-111303 Grab Groundwater Sample	4165126
TW3-111303 Grab Groundwater Sample	4165127
TW1-111303 Grab Groundwater Sample	4165128
TW3-111303-02 Grab Groundwater Sample	4165129
TW23-111303 Grab Groundwater Sample	4165130
MW25S-111303 Grab Groundwater Sample	4165131
MW25S-111303-02 Grab Groundwater Sample	4165132
PZ25D-111303 Grab Groundwater Sample	4165133
PZ25I-111303 Grab Groundwater Sample	4165134
PZ24I-111303 Grab Groundwater Sample	4165135
PZ24D-111303 Grab Groundwater Sample	4165136
MW24S-111303 Grab Groundwater Sample	4165137
MW24S-111303-02 Grab Groundwater Sample	4165138
MW39S-111303 Grab Groundwater Sample	4165139
MW39S-111303 Matrix Spike Grab Groundwater Sample	4165140
MW39S-111303 Matrix Spike Dup Grab Groundwater	4165141
PZ39I-111303 Grab Groundwater Sample	4165142
PZ39D-111303 Grab Groundwater Sample	4165143
PZ27D-111303 Grab Groundwater Sample	4165144
PZ27D-111303 Filtered Grab Water Sample	4165145
PZ27I-111303 Grab Groundwater Sample	4165146
PZ27I-111303 Filtered Grab Water Sample	4165147
MW27S-111303 Grab Groundwater Sample	4165148
MW27S-111303 Filtered Grab Water Sample	4165149
MW33S-111303 Grab Groundwater Sample	4165150

Analysis Report

Lancaster Laboratories

PZ33D-111303 Grab Groundwater Sample	4165151
PZ33I-111303 Grab Groundwater Sample	4165152
Trip_Blank Water Sample	4165153

1 COPY TO	Earth Tech	Attn: Ms. Lisa Smith
1 COPY TO	Earth Tech	Attn: Mr. Rob Stenson

Questions? Contact your Client Services Representative
Katherine A Klinefelter at (717) 656-2300.

Respectfully Submitted,

Robert E. Mellinger
Sr. Chemist/Coordinator

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165122

TW17-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 08:00 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

17TW- SDG#: DCN81-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06291	TCL by 8260 (water)					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05385	Chloromethane	74-87-3	N.D.	1.	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.	1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.	1.	ug/l	1
05388	Chloroethane	75-00-3	N.D.	1.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	N.D.	0.8	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.	2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	ug/l	1
05393	1,1-Dichloroethane	75-34-3	N.D.	1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	N.D.	0.8	ug/l	1
05396	Chloroform	67-66-3	N.D.	0.8	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.	1.	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	1.	ug/l	1
05403	Trichloroethene	79-01-6	N.D.	1.	ug/l	1
05404	1,2-Dichloropropane	78-87-5	N.D.	1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.	1.	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	ug/l	1
05409	Tetrachloroethene	127-18-4	N.D.	0.8	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.	1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
05418	Styrene	100-42-5	N.D.	1.	ug/l	1
05419	Bromoform	75-25-2	N.D.	1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1.	ug/l	1
06302	Acetone	67-64-1	N.D.	6.	ug/l	1
06303	Carbon Disulfide	75-15-0	N.D.	1.	ug/l	1
06305	2-Butanone	78-93-3	N.D.	3.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.	1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.	1.	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	N.D.	3.	ug/l	1
06309	2-Hexanone	591-78-6	N.D.	3.	ug/l	1

MEMBER ACIL

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165122

TW17-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 08:00 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

17TW- SDG#: DCN81-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	11/22/2003 12:42	Roy R Mellott Jr	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	11/22/2003 12:42	Roy R Mellott Jr	n.a.

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165123

TW4-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 08:50 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

41111 SDG#: DCN81-02

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
06291	TCL by 8260 (water)						
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	ug/l	1
05385	Chloromethane	74-87-3	N.D.		1.	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.		1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.		1.	ug/l	1
05388	Chloroethane	75-00-3	N.D.		1.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	N.D.		0.8	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.		2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	N.D.		0.8	ug/l	1
05393	1,1-Dichloroethane	75-34-3	N.D.		1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	1.	J	0.8	ug/l	1
05396	Chloroform	67-66-3	3.	J	0.8	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	3.	J	0.8	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.		1.	ug/l	1
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.		1.	ug/l	1
05403	Trichloroethene	79-01-6	13.		1.	ug/l	1
05404	1,2-Dichloropropane	78-87-5	N.D.		1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.		1.	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.		0.8	ug/l	1
05409	Tetrachloroethene	127-18-4	40.		0.8	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.		1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
05418	Styrene	100-42-5	N.D.		1.	ug/l	1
05419	Bromoform	75-25-2	N.D.		1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		1.	ug/l	1
06302	Acetone	67-64-1	N.D.		6.	ug/l	1
06303	Carbon Disulfide	75-15-0	N.D.		1.	ug/l	1
06305	2-Butanone	78-93-3	N.D.		3.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.		1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.		1.	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	N.D.		3.	ug/l	1
06309	2-Hexanone	591-78-6	N.D.		3.	ug/l	1

MEMBER ACIL

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165123

TW4-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 08:50 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

41111 SDG#: DCN81-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	11/22/2003 13:06	Roy R Mellott Jr	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	11/22/2003 13:06	Roy R Mellott Jr	n.a.

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165124

TW8-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 09:40 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

81113 SDG#: DCN81-03

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
06291	TCL by 8260 (water)						
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	ug/l	1
05385	Chloromethane	74-87-3	N.D.		1.	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.		1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.		1.	ug/l	1
05388	Chloroethane	75-00-3	N.D.		1.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	N.D.		0.8	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.		2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	N.D.		0.8	ug/l	1
05393	1,1-Dichloroethane	75-34-3	1.	J	1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	2.	J	0.8	ug/l	1
05396	Chloroform	67-66-3	2.	J	0.8	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	7.		0.8	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.		1.	ug/l	1
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.		1.	ug/l	1
05403	Trichloroethene	79-01-6	210.		1.	ug/l	1
05404	1,2-Dichloropropane	78-87-5	N.D.		1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.		1.	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.		0.8	ug/l	1
05409	Tetrachloroethene	127-18-4	6.		0.8	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.		1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
05418	Styrene	100-42-5	N.D.		1.	ug/l	1
05419	Bromoform	75-25-2	N.D.		1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		1.	ug/l	1
06302	Acetone	67-64-1	N.D.		6.	ug/l	1
06303	Carbon Disulfide	75-15-0	N.D.		1.	ug/l	1
06305	2-Butanone	78-93-3	N.D.		3.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.		1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.		1.	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	N.D.		3.	ug/l	1
06309	2-Hexanone	591-78-6	N.D.		3.	ug/l	1

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165124

TW8-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 09:40 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

81113 SDG#: DCN81-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	11/22/2003 13:30	Roy R Mellott Jr	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	11/22/2003 13:30	Roy R Mellott Jr	n.a.

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165125

TW5-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 10:30 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

51113 SDG#: DCN81-04

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
06291	TCL by 8260 (water)						
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	ug/l	1
05385	Chloromethane	74-87-3	N.D.		1.	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.		1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.		1.	ug/l	1
05388	Chloroethane	75-00-3	N.D.		1.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	N.D.		0.8	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.		2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	N.D.		0.8	ug/l	1
05393	1,1-Dichloroethane	75-34-3	N.D.		1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	0.9	J	0.8	ug/l	1
05396	Chloroform	67-66-3	5.	J	0.8	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	3.	J	0.8	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.		1.	ug/l	1
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.		1.	ug/l	1
05403	Trichloroethene	79-01-6	250.		1.	ug/l	1
05404	1,2-Dichloropropane	78-87-5	N.D.		1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.		1.	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.		0.8	ug/l	1
05409	Tetrachloroethene	127-18-4	0.9	J	0.8	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.		1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
05418	Styrene	100-42-5	N.D.		1.	ug/l	1
05419	Bromoform	75-25-2	N.D.		1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		1.	ug/l	1
06302	Acetone	67-64-1	N.D.		6.	ug/l	1
06303	Carbon Disulfide	75-15-0	N.D.		1.	ug/l	1
06305	2-Butanone	78-93-3	N.D.		3.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.		1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.		1.	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	N.D.		3.	ug/l	1
06309	2-Hexanone	591-78-6	N.D.		3.	ug/l	1

MEMBER ACIL
[illegible]

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165125

TW5-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 10:30 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

51113 SDG#: DCN81-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	11/22/2003 13:53	Roy R Mellott Jr	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	11/22/2003 13:53	Roy R Mellott Jr	n.a.

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165126

TW6-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 11:50 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

61113 SDG#: DCN81-05

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
06291	TCL by 8260 (water)						
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	ug/l	1
05385	Chloromethane	74-87-3	N.D.		1.	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.		1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.		1.	ug/l	1
05388	Chloroethane	75-00-3	N.D.		1.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	N.D.		0.8	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.		2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	N.D.		0.8	ug/l	1
05393	1,1-Dichloroethane	75-34-3	N.D.		1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	3.	J	0.8	ug/l	1
05396	Chloroform	67-66-3	2.	J	0.8	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	2.	J	0.8	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.		1.	ug/l	1
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.		1.	ug/l	1
05403	Trichloroethene	79-01-6	200.		1.	ug/l	1
05404	1,2-Dichloropropane	78-87-5	N.D.		1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.		1.	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.		0.8	ug/l	1
05409	Tetrachloroethene	127-18-4	35.		0.8	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.		1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
05418	Styrene	100-42-5	N.D.		1.	ug/l	1
05419	Bromoform	75-25-2	N.D.		1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		1.	ug/l	1
06302	Acetone	67-64-1	N.D.		6.	ug/l	1
06303	Carbon Disulfide	75-15-0	N.D.		1.	ug/l	1
06305	2-Butanone	78-93-3	N.D.		3.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.		1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.		1.	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	N.D.		3.	ug/l	1
06309	2-Hexanone	591-78-6	N.D.		3.	ug/l	1

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165126

TW6-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 11:50 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

61113 SDG#: DCN81-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	11/22/2003 14:16	Roy R Mellott Jr	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	11/22/2003 14:16	Roy R Mellott Jr	n.a.

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165127

TW3-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 14:40 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

31113 SDG#: DCN81-06

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
06291	TCL by 8260 (water)						
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	ug/l	1
05385	Chloromethane	74-87-3	N.D.		1.	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.		1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.		1.	ug/l	1
05388	Chloroethane	75-00-3	N.D.		1.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	N.D.		0.8	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.		2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	N.D.		0.8	ug/l	1
05393	1,1-Dichloroethane	75-34-3	2.	J	1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	3.	J	0.8	ug/l	1
05396	Chloroform	67-66-3	N.D.		0.8	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	7.		0.8	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.		1.	ug/l	1
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.		1.	ug/l	1
05403	Trichloroethene	79-01-6	660.		10.	ug/l	10
05404	1,2-Dichloropropane	78-87-5	N.D.		1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.		1.	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.		0.8	ug/l	1
05409	Tetrachloroethene	127-18-4	11.		0.8	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.		1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
05418	Styrene	100-42-5	N.D.		1.	ug/l	1
05419	Bromoform	75-25-2	N.D.		1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		1.	ug/l	1
06302	Acetone	67-64-1	N.D.		6.	ug/l	1
06303	Carbon Disulfide	75-15-0	N.D.		1.	ug/l	1
06305	2-Butanone	78-93-3	N.D.		3.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.		1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.		1.	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	N.D.		3.	ug/l	1
06309	2-Hexanone	591-78-6	N.D.		3.	ug/l	1

MEMBER ACIL

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165127

TW3-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 14:40 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

31113 SDG#: DCN81-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	11/22/2003 14:40	Roy R Mellott Jr	1
06291	TCL by 8260 (water)	SW-846 8260B	1	11/22/2003 15:04	Roy R Mellott Jr	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	11/22/2003 14:40	Roy R Mellott Jr	n.a.

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165128

TW1-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 15:30 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

11113 SDG#: DCN81-07

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
06291	TCL by 8260 (water)						
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	ug/l	1
05385	Chloromethane	74-87-3	N.D.		1.	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.		1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.		1.	ug/l	1
05388	Chloroethane	75-00-3	N.D.		1.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	N.D.		0.8	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.		2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	N.D.		0.8	ug/l	1
05393	1,1-Dichloroethane	75-34-3	N.D.		1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	4.	J	0.8	ug/l	1
05396	Chloroform	67-66-3	N.D.		0.8	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	N.D.		0.8	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.		1.	ug/l	1
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.		1.	ug/l	1
05403	Trichloroethene	79-01-6	N.D.		1.	ug/l	1
05404	1,2-Dichloropropane	78-87-5	N.D.		1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.		1.	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.		0.8	ug/l	1
05409	Tetrachloroethene	127-18-4	N.D.		0.8	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.		1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
05418	Styrene	100-42-5	N.D.		1.	ug/l	1
05419	Bromoform	75-25-2	N.D.		1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		1.	ug/l	1
06302	Acetone	67-64-1	N.D.		6.	ug/l	1
06303	Carbon Disulfide	75-15-0	N.D.		1.	ug/l	1
06305	2-Butanone	78-93-3	N.D.		3.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.		1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.		1.	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	N.D.		3.	ug/l	1
06309	2-Hexanone	591-78-6	N.D.		3.	ug/l	1

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165128

TW1-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 15:30 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

11113 SDG#: DCN81-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	11/22/2003 15:28	Roy R Mellott Jr	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	11/22/2003 15:28	Roy R Mellott Jr	n.a.

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165129

TW3-111303-02 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 14:45 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

311TW SDG#: DCN81-08FD

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
06291	TCL by 8260 (water)						
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	ug/l	1
05385	Chloromethane	74-87-3	N.D.		1.	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.		1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.		1.	ug/l	1
05388	Chloroethane	75-00-3	N.D.		1.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	N.D.		0.8	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.		2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	N.D.		0.8	ug/l	1
05393	1,1-Dichloroethane	75-34-3	2.	J	1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	3.	J	0.8	ug/l	1
05396	Chloroform	67-66-3	N.D.		0.8	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	7.		0.8	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.		1.	ug/l	1
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.		1.	ug/l	1
05403	Trichloroethene	79-01-6	680.		10.	ug/l	10
05404	1,2-Dichloropropane	78-87-5	N.D.		1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.		1.	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.		0.8	ug/l	1
05409	Tetrachloroethene	127-18-4	11.		0.8	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.		1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
05418	Styrene	100-42-5	N.D.		1.	ug/l	1
05419	Bromoform	75-25-2	N.D.		1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		1.	ug/l	1
06302	Acetone	67-64-1	N.D.		6.	ug/l	1
06303	Carbon Disulfide	75-15-0	N.D.		1.	ug/l	1
06305	2-Butanone	78-93-3	N.D.		3.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.		1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.		1.	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	N.D.		3.	ug/l	1
06309	2-Hexanone	591-78-6	N.D.		3.	ug/l	1

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165129

TW3-111303-02 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 14:45 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

311TW SDG#: DCN81-08FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	11/22/2003 15:51	Roy R Mellott Jr	1
06291	TCL by 8260 (water)	SW-846 8260B	1	11/22/2003 16:14	Roy R Mellott Jr	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	11/22/2003 15:51	Roy R Mellott Jr	n.a.

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165130

TW23-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 16:25 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

TW23- SDG#: DCN81-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06291	TCL by 8260 (water)					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05385	Chloromethane	74-87-3	N.D.	1.	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.	1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.	1.	ug/l	1
05388	Chloroethane	75-00-3	N.D.	1.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	N.D.	0.8	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.	2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	ug/l	1
05393	1,1-Dichloroethane	75-34-3	N.D.	1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	N.D.	0.8	ug/l	1
05396	Chloroform	67-66-3	N.D.	0.8	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.	1.	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	1.	ug/l	1
05403	Trichloroethene	79-01-6	N.D.	1.	ug/l	1
05404	1,2-Dichloropropane	78-87-5	N.D.	1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.	1.	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	ug/l	1
05409	Tetrachloroethene	127-18-4	N.D.	0.8	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.	1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
05418	Styrene	100-42-5	N.D.	1.	ug/l	1
05419	Bromoform	75-25-2	N.D.	1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1.	ug/l	1
06302	Acetone	67-64-1	N.D.	6.	ug/l	1
06303	Carbon Disulfide	75-15-0	N.D.	1.	ug/l	1
06305	2-Butanone	78-93-3	N.D.	3.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.	1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.	1.	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	N.D.	3.	ug/l	1
06309	2-Hexanone	591-78-6	N.D.	3.	ug/l	1

MEMBER ACIL
Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax 717-656-2681

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165130

TW23-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 16:25 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

TW23- SDG#: DCN81-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	11/22/2003 16:38	Roy R Mellott Jr	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	11/22/2003 16:38	Roy R Mellott Jr	n.a.

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165131

MW25S-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 08:30 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

255-- SDG#: DCN81-10

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
06291	TCL by 8260 (water)						
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	ug/l	1
05385	Chloromethane	74-87-3	N.D.		1.	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.		1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.		1.	ug/l	1
05388	Chloroethane	75-00-3	N.D.		1.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	N.D.		0.8	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.		2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	N.D.		0.8	ug/l	1
05393	1,1-Dichloroethane	75-34-3	N.D.		1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	19.		0.8	ug/l	1
05396	Chloroform	67-66-3	N.D.		0.8	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	3.	J	0.8	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.		1.	ug/l	1
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.		1.	ug/l	1
05403	Trichloroethene	79-01-6	120.		1.	ug/l	1
05404	1,2-Dichloropropane	78-87-5	N.D.		1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.		1.	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.		0.8	ug/l	1
05409	Tetrachloroethene	127-18-4	2.	J	0.8	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.		1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
05418	Styrene	100-42-5	N.D.		1.	ug/l	1
05419	Bromoform	75-25-2	N.D.		1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		1.	ug/l	1
06302	Acetone	67-64-1	N.D.		6.	ug/l	1
06303	Carbon Disulfide	75-15-0	N.D.		1.	ug/l	1
06305	2-Butanone	78-93-3	N.D.		3.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.		1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.		1.	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	N.D.		3.	ug/l	1
06309	2-Hexanone	591-78-6	N.D.		3.	ug/l	1

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165131

MW25S-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 08:30 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

255-- SDG#: DCN81-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	11/22/2003 17:02	Roy R Mellott Jr	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	11/22/2003 17:02	Roy R Mellott Jr	n.a.

MEMBER ACIL
[illegible]
2425 New Holland Pike
PO Box 12425
Lancaster PA 17605-2425
(717) 656-2300 Fax (717) 656-2681

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165132

MW25S-111303-02 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 08:35 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

25S-- SDG#: DCN81-11FD

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
06291	TCL by 8260 (water)						
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	ug/l	1
05385	Chloromethane	74-87-3	N.D.		1.	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.		1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.		1.	ug/l	1
05388	Chloroethane	75-00-3	N.D.		1.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	N.D.		0.8	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.		2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	0.9	J	0.8	ug/l	1
05393	1,1-Dichloroethane	75-34-3	N.D.		1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	19.		0.8	ug/l	1
05396	Chloroform	67-66-3	N.D.		0.8	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	3.	J	0.8	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.		1.	ug/l	1
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.		1.	ug/l	1
05403	Trichloroethene	79-01-6	130.		1.	ug/l	1
05404	1,2-Dichloropropane	78-87-5	N.D.		1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.		1.	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.		0.8	ug/l	1
05409	Tetrachloroethene	127-18-4	2.	J	0.8	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.		1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
05418	Styrene	100-42-5	N.D.		1.	ug/l	1
05419	Bromoform	75-25-2	N.D.		1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		1.	ug/l	1
06302	Acetone	67-64-1	N.D.		6.	ug/l	1
06303	Carbon Disulfide	75-15-0	N.D.		1.	ug/l	1
06305	2-Butanone	78-93-3	N.D.		3.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.		1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.		1.	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	N.D.		3.	ug/l	1
06309	2-Hexanone	591-78-6	N.D.		3.	ug/l	1

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165132

MW25S-111303-02 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 08:35 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

25S-- SDG#: DCN81-11FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	11/22/2003 17:25	Roy R Mellott Jr	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	11/22/2003 17:25	Roy R Mellott Jr	n.a.

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165133

PZ25D-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 08:30 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

5D111 SDG#: DCN81-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06291	TCL by 8260 (water)					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05385	Chloromethane	74-87-3	N.D.	1.	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.	1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.	1.	ug/l	1
05388	Chloroethane	75-00-3	N.D.	1.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	N.D.	0.8	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.	2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	ug/l	1
05393	1,1-Dichloroethane	75-34-3	N.D.	1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	N.D.	0.8	ug/l	1
05396	Chloroform	67-66-3	N.D.	0.8	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.	1.	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	1.	ug/l	1
05403	Trichloroethene	79-01-6	N.D.	1.	ug/l	1
05404	1,2-Dichloropropane	78-87-5	N.D.	1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.	1.	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	ug/l	1
05409	Tetrachloroethene	127-18-4	N.D.	0.8	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.	1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
05418	Styrene	100-42-5	N.D.	1.	ug/l	1
05419	Bromoform	75-25-2	N.D.	1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1.	ug/l	1
06302	Acetone	67-64-1	N.D.	6.	ug/l	1
06303	Carbon Disulfide	75-15-0	N.D.	1.	ug/l	1
06305	2-Butanone	78-93-3	N.D.	3.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.	1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.	1.	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	N.D.	3.	ug/l	1
06309	2-Hexanone	591-78-6	N.D.	3.	ug/l	1

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165133

PZ25D-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 08:30 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

5D111 SDG#: DCN81-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	11/22/2003 17:48	Roy R Mellott Jr	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	11/22/2003 17:48	Roy R Mellott Jr	n.a.

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165134

PZ25I-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 09:00 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

5I111 SDG#: DCN81-13

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
06291	TCL by 8260 (water)						
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	ug/l	1
05385	Chloromethane	74-87-3	N.D.		1.	ug/l	1
05386	Vinyl Chloride	75-01-4	4.	J	1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.		1.	ug/l	1
05388	Chloroethane	75-00-3	N.D.		1.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	14.		0.8	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.		2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	51.		0.8	ug/l	1
05393	1,1-Dichloroethane	75-34-3	27.		1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	850.		8.	ug/l	10
05396	Chloroform	67-66-3	N.D.		0.8	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	11.		0.8	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.		1.	ug/l	1
05401	Benzene	71-43-2	0.6	J	0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	8.		1.	ug/l	1
05403	Trichloroethene	79-01-6	120.		1.	ug/l	1
05404	1,2-Dichloropropane	78-87-5	N.D.		1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.		1.	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.		0.8	ug/l	1
05409	Tetrachloroethene	127-18-4	N.D.		0.8	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.		1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
05418	Styrene	100-42-5	N.D.		1.	ug/l	1
05419	Bromoform	75-25-2	N.D.		1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		1.	ug/l	1
06302	Acetone	67-64-1	N.D.		6.	ug/l	1
06303	Carbon Disulfide	75-15-0	N.D.		1.	ug/l	1
06305	2-Butanone	78-93-3	N.D.		3.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.		1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.		1.	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	N.D.		3.	ug/l	1
06309	2-Hexanone	591-78-6	N.D.		3.	ug/l	1

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165134

PZ25I-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 09:00 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

5I111 SDG#: DCN81-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	11/22/2003 18:12	Roy R Mellott Jr	1
06291	TCL by 8260 (water)	SW-846 8260B	1	11/22/2003 18:36	Roy R Mellott Jr	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	11/22/2003 18:12	Roy R Mellott Jr	n.a.

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165135

PZ24I-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 10:05 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

24III SDG#: DCN81-14

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
06291	TCL by 8260 (water)						
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	ug/l	1
05385	Chloromethane	74-87-3	N.D.		1.	ug/l	1
05386	Vinyl Chloride	75-01-4	12.		1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.		1.	ug/l	1
05388	Chloroethane	75-00-3	2.	J	1.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	66.		0.8	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.		2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	17.		0.8	ug/l	1
05393	1,1-Dichloroethane	75-34-3	26.		1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	350.		8.	ug/l	10
05396	Chloroform	67-66-3	1.	J	0.8	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	260.		8.	ug/l	10
05399	Carbon Tetrachloride	56-23-5	N.D.		1.	ug/l	1
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	1.	J	1.	ug/l	1
05403	Trichloroethene	79-01-6	1,300.		10.	ug/l	10
05404	1,2-Dichloropropane	78-87-5	N.D.		1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.		1.	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	1.	J	0.8	ug/l	1
05409	Tetrachloroethene	127-18-4	9.		0.8	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.		1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
05418	Styrene	100-42-5	N.D.		1.	ug/l	1
05419	Bromoform	75-25-2	N.D.		1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		1.	ug/l	1
06302	Acetone	67-64-1	N.D.		6.	ug/l	1
06303	Carbon Disulfide	75-15-0	N.D.		1.	ug/l	1
06305	2-Butanone	78-93-3	N.D.		3.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.		1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.		1.	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	N.D.		3.	ug/l	1
06309	2-Hexanone	591-78-6	N.D.		3.	ug/l	1

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165135

PZ24I-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 10:05 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

24III SDG#: DCN81-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	11/22/2003 18:59	Roy R Mellott Jr	1
06291	TCL by 8260 (water)	SW-846 8260B	1	11/24/2003 06:25	Anastasia Papadoplos	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	11/22/2003 18:59	Roy R Mellott Jr	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	2	11/24/2003 06:25	Anastasia Papadoplos	n.a.

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165136

PZ24D-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 10:10 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

24D-- SDG#: DCN81-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06291	TCL by 8260 (water)					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05385	Chloromethane	74-87-3	N.D.	1.	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.	1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.	1.	ug/l	1
05388	Chloroethane	75-00-3	N.D.	1.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	N.D.	0.8	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.	2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	ug/l	1
05393	1,1-Dichloroethane	75-34-3	N.D.	1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	N.D.	0.8	ug/l	1
05396	Chloroform	67-66-3	N.D.	0.8	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.	1.	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	1.	ug/l	1
05403	Trichloroethene	79-01-6	N.D.	1.	ug/l	1
05404	1,2-Dichloropropane	78-87-5	N.D.	1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.	1.	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	ug/l	1
05409	Tetrachloroethene	127-18-4	N.D.	0.8	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.	1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
05418	Styrene	100-42-5	N.D.	1.	ug/l	1
05419	Bromoform	75-25-2	N.D.	1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1.	ug/l	1
06302	Acetone	67-64-1	N.D.	6.	ug/l	1
06303	Carbon Disulfide	75-15-0	N.D.	1.	ug/l	1
06305	2-Butanone	78-93-3	N.D.	3.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.	1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.	1.	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	N.D.	3.	ug/l	1
06309	2-Hexanone	591-78-6	N.D.	3.	ug/l	1

MEMBER ACIL
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PO Box [illegible]
Lancaster PA [illegible]
717 656 2300 [illegible]

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165136

PZ24D-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 10:10 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

24D-- SDG#: DCN81-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	11/24/2003 06:48	Anastasia Papadoplos	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	11/24/2003 06:48	Anastasia Papadoplos	n.a.

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165137

MW24S-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 10:30 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

24S-- SDG#: DCN81-16

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
06291	TCL by 8260 (water)						
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	ug/l	1
05385	Chloromethane	74-87-3	N.D.		1.	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.		1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.		1.	ug/l	1
05388	Chloroethane	75-00-3	N.D.		1.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	N.D.		0.8	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.		2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	N.D.		0.8	ug/l	1
05393	1,1-Dichloroethane	75-34-3	N.D.		1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	N.D.		0.8	ug/l	1
05396	Chloroform	67-66-3	2.	J	0.8	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	N.D.		0.8	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.		1.	ug/l	1
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.		1.	ug/l	1
05403	Trichloroethene	79-01-6	N.D.		1.	ug/l	1
05404	1,2-Dichloropropane	78-87-5	N.D.		1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.		1.	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.		0.8	ug/l	1
05409	Tetrachloroethene	127-18-4	N.D.		0.8	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.		1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
05418	Styrene	100-42-5	N.D.		1.	ug/l	1
05419	Bromoform	75-25-2	N.D.		1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		1.	ug/l	1
06302	Acetone	67-64-1	N.D.		6.	ug/l	1
06303	Carbon Disulfide	75-15-0	N.D.		1.	ug/l	1
06305	2-Butanone	78-93-3	N.D.		3.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.		1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.		1.	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	N.D.		3.	ug/l	1
06309	2-Hexanone	591-78-6	N.D.		3.	ug/l	1

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165137

MW24S-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 10:30 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:35
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

24S-- SDG#: DCN81-16

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	11/22/2003 19:46	Roy R Mellott Jr	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	11/22/2003 19:46	Roy R Mellott Jr	n.a.

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165138

MW24S-111303-02 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 10:35 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:36
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

2402~ SDG#: DCN81-17FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06291	TCL by 8260 (water)					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05385	Chloromethane	74-87-3	N.D.	1.	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.	1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.	1.	ug/l	1
05388	Chloroethane	75-00-3	N.D.	1.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	N.D.	0.8	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.	2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	ug/l	1
05393	1,1-Dichloroethane	75-34-3	N.D.	1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	N.D.	0.8	ug/l	1
05396	Chloroform	67-66-3	2. J	0.8	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.	1.	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	1.	ug/l	1
05403	Trichloroethene	79-01-6	N.D.	1.	ug/l	1
05404	1,2-Dichloropropane	78-87-5	N.D.	1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.	1.	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	ug/l	1
05409	Tetrachloroethene	127-18-4	N.D.	0.8	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.	1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
05418	Styrene	100-42-5	N.D.	1.	ug/l	1
05419	Bromoform	75-25-2	N.D.	1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1.	ug/l	1
06302	Acetone	67-64-1	N.D.	6.	ug/l	1
06303	Carbon Disulfide	75-15-0	N.D.	1.	ug/l	1
06305	2-Butanone	78-93-3	N.D.	3.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.	1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.	1.	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	N.D.	3.	ug/l	1
06309	2-Hexanone	591-78-6	N.D.	3.	ug/l	1

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165138

MW24S-111303-02 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 10:35 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:36
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

2402- SDG#: DCN81-17FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	11/22/2003 20:10	Roy R Mellott Jr	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	11/22/2003 20:10	Roy R Mellott Jr	n.a.

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165139

MW39S-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 11:20 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:36
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

34S11 SDG#: DCN81-18BKG

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
06291	TCL by 8260 (water)						
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	ug/l	1
05385	Chloromethane	74-87-3	N.D.		1.	ug/l	1
05386	Vinyl Chloride	75-01-4	3.	J	1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.		1.	ug/l	1
05388	Chloroethane	75-00-3	N.D.		1.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	1.	J	0.8	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.		2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	8.		0.8	ug/l	1
05393	1,1-Dichloroethane	75-34-3	3.	J	1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	150.		0.8	ug/l	1
05396	Chloroform	67-66-3	N.D.		0.8	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	4.	J	0.8	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.		1.	ug/l	1
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	2.	J	1.	ug/l	1
05403	Trichloroethene	79-01-6	400.		5.	ug/l	5
05404	1,2-Dichloropropane	78-87-5	N.D.		1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.		1.	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.		0.8	ug/l	1
05409	Tetrachloroethene	127-18-4	N.D.		0.8	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.		1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
05418	Styrene	100-42-5	N.D.		1.	ug/l	1
05419	Bromoform	75-25-2	N.D.		1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		1.	ug/l	1
06302	Acetone	67-64-1	N.D.		6.	ug/l	1
06303	Carbon Disulfide	75-15-0	N.D.		1.	ug/l	1
06305	2-Butanone	78-93-3	N.D.		3.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.		1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.		1.	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	N.D.		3.	ug/l	1
06309	2-Hexanone	591-78-6	N.D.		3.	ug/l	1

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165139

MW39S-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 11:20 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:36
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

34S11 SDG#: DCN81-18BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	11/22/2003 20:34	Roy R Mellott Jr	1
06291	TCL by 8260 (water)	SW-846 8260B	1	11/22/2003 21:44	Roy R Mellott Jr	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	11/22/2003 20:34	Roy R Mellott Jr	n.a.

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165140

MW39S-111303 Matrix Spike Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 11:20 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:36
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

34S11 SDG#: DCN81-18MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06291	TCL by 8260 (water)					
02010	Methyl Tertiary Butyl Ether	1634-04-4	16.	0.5	ug/l	1
05385	Chloromethane	74-87-3	19.	1.	ug/l	1
05386	Vinyl Chloride	75-01-4	23.	1.	ug/l	1
05387	Bromomethane	74-83-9	16.	1.	ug/l	1
05388	Chloroethane	75-00-3	18.	1.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	19.	0.8	ug/l	1
05391	Methylene Chloride	75-09-2	17.	2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	26.	0.8	ug/l	1
05393	1,1-Dichloroethane	75-34-3	22.	1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	160.	0.8	ug/l	1
05396	Chloroform	67-66-3	17.	0.8	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	22.	0.8	ug/l	1
05399	Carbon Tetrachloride	56-23-5	18.	1.	ug/l	1
05401	Benzene	71-43-2	18.	0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	19.	1.	ug/l	1
05403	Trichloroethene	79-01-6	580.	1.	ug/l	1
05404	1,2-Dichloropropane	78-87-5	19.	1.	ug/l	1
05406	Bromodichloromethane	75-27-4	16.	1.	ug/l	1
05407	Toluene	108-88-3	17.	0.7	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	18.	0.8	ug/l	1
05409	Tetrachloroethene	127-18-4	18.	0.8	ug/l	1
05411	Dibromochloromethane	124-48-1	16.	1.	ug/l	1
05413	Chlorobenzene	108-90-7	17.	0.8	ug/l	1
05415	Ethylbenzene	100-41-4	17.	0.8	ug/l	1
05418	Styrene	100-42-5	16.	1.	ug/l	1
05419	Bromoform	75-25-2	17.	1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	17.	1.	ug/l	1
06302	Acetone	67-64-1	150.	6.	ug/l	1
06303	Carbon Disulfide	75-15-0	18.	1.	ug/l	1
06305	2-Butanone	78-93-3	140.	3.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	16.	1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	16.	1.	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	85.	3.	ug/l	1
06309	2-Hexanone	591-78-6	89.	3.	ug/l	1

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165148

MW27S-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 15:50 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:36
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

27S-- SDG#: DCN81-25

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01754	Iron	7439-89-6	7.37	0.0453	mg/l	1
02268	Ferric Iron	n.a.	7.0	0.045	mg/l	1
07058	Manganese	7439-96-5	0.361	0.00051	mg/l	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	0.41	mg/l as CaCO3	1
00202	Alkalinity to pH 4.5	n.a.	277.	0.41	mg/l as CaCO3	1
00216	Total Hardness	471-34-1	516.	2.5	mg/l as CaCO3	5
00219	Nitrite Nitrogen	14797-65-0	0.021 J	0.015	mg/l	1
00220	Nitrate Nitrogen	14797-55-8	N.D.	0.040	mg/l	1
00229	Sulfite	14265-45-3	N.D.	1.2	mg/l	1
	The 40 CFR Part 136 requires that analysis for sulfite be performed immediately (within 15 minutes) upon sample collection. Although this analysis is performed promptly upon receipt at the laboratory, the results may not be acceptable for NPDES compliance monitoring.					
00273	Total Organic Carbon	n.a.	2.1	0.50	mg/l	1
01125	Sulfate (turbidimetric)	14808-79-8	124.	7.5	mg/l	5
04001	Chemical Oxygen Demand	n.a.	32.5 J	8.2	mg/l	1
08344	Ferrous Iron	n.a.	0.36	0.0080	mg/l	1
07105	Volatile Headspace Hydrocarbon					
07107	Ethane	74-84-0	N.D.	1.0	ug/l	1
07108	Ethene	74-85-1	N.D.	1.0	ug/l	1
06291	TCL by 8260 (water)					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05385	Chloromethane	74-87-3	N.D.	1.	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.	1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.	1.	ug/l	1
05388	Chloroethane	75-00-3	N.D.	1.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	N.D.	0.8	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.	2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	ug/l	1
05393	1,1-Dichloroethane	75-34-3	N.D.	1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	N.D.	0.8	ug/l	1
05396	Chloroform	67-66-3	N.D.	0.8	ug/l	1

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165148

MW27S-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 15:50 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:36
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

27S-- SDG#: DCN81-25

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
05398	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.	1.	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	1.	ug/l	1
05403	Trichloroethene	79-01-6	N.D.	1.	ug/l	1
05404	1,2-Dichloropropane	78-87-5	N.D.	1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.	1.	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	ug/l	1
05409	Tetrachloroethene	127-18-4	N.D.	0.8	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.	1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
05418	Styrene	100-42-5	N.D.	1.	ug/l	1
05419	Bromoform	75-25-2	N.D.	1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1.	ug/l	1
06302	Acetone	67-64-1	N.D.	6.	ug/l	1
06303	Carbon Disulfide	75-15-0	N.D.	1.	ug/l	1
06305	2-Butanone	78-93-3	N.D.	3.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.	1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.	1.	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	N.D.	3.	ug/l	1
06309	2-Hexanone	591-78-6	N.D.	3.	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	11/24/2003 04:14	Donna R Sackett	1
02268	Ferric Iron	SW-846 6010B modified	1	11/25/2003 12:47	Nina C Haller	1
07058	Manganese	SW-846 6010B	1	11/24/2003 04:14	Donna R Sackett	1
00201	Alkalinity to pH 8.3	EPA 310.1	1	11/16/2003 17:53	Elaine F Stoltzfus	1
00202	Alkalinity to pH 4.5	EPA 310.1	1	11/16/2003 17:53	Elaine F Stoltzfus	1
00216	Total Hardness	EPA 130.2 (modified)	1	11/18/2003 11:06	Susan A Engle	5
00219	Nitrite Nitrogen	EPA 353.2	1	11/15/2003 08:41	Kyle W Eckenroad	1

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165148

MW27S-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 15:50 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:36
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

27S-- SDG#: DCN81-25

00220	Nitrate Nitrogen	EPA 353.2	1	11/18/2003 18:36	Venia B McFadden	1
00229	Sulfite	EPA 377.1	1	11/17/2003 07:30	Michele L Graham	1
00273	Total Organic Carbon	EPA 415.1	1	11/17/2003 21:16	Timothy M Petree	1
01125	Sulfate (turbidimetric)	EPA 375.4	1	11/20/2003 08:50	Susan A Engle	5
04001	Chemical Oxygen Demand	EPA 410.4	1	11/19/2003 09:40	Susan A Engle	1
08344	Ferrous Iron	SM 18, 3500-Fe D (modified)	1	11/16/2003 07:45	Daniel S Smith	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B, modified	1	11/18/2003 13:37	Tiffany A George	1
06291	TCL by 8260 (water)	SW-846 8260B	1	11/21/2003 17:29	Susan McMahon-Luu	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	11/21/2003 17:29	Susan McMahon-Luu	n.a.
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	11/22/2003 18:45	James L Mertz	1

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165149

MW27S-111303 Filtered Grab Water Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 15:50 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:36
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

27S1F SDG#: DCN81-26

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
01754	Iron	7439-89-6	N.D.		0.0453	mg/l	1
04001	Chemical Oxygen Demand	n.a.	11.5	J	8.2	mg/l	1

This sample was field filtered for dissolved metals and COD.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	11/24/2003 04:19	Donna R Sackett	1
04001	Chemical Oxygen Demand	EPA 410.4	1	11/19/2003 09:40	Susan A Engle	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	11/22/2003 18:45	James L Mertz	1

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165150

MW33S-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 16:45 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:36
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

33S-- SDG#: DCN81-27

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
06291	TCL by 8260 (water)						
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		1.	ug/l	2
05385	Chloromethane	74-87-3	N.D.		2.	ug/l	2
05386	Vinyl Chloride	75-01-4	23.		2.	ug/l	2
05387	Bromomethane	74-83-9	N.D.		2.	ug/l	2
05388	Chloroethane	75-00-3	N.D.		2.	ug/l	2
05390	1,1-Dichloroethene	75-35-4	2.	J	2.	ug/l	2
05391	Methylene Chloride	75-09-2	N.D.		4.	ug/l	2
05392	trans-1,2-Dichloroethene	156-60-5	17.		2.	ug/l	2
05393	1,1-Dichloroethane	75-34-3	39.		2.	ug/l	2
05395	cis-1,2-Dichloroethene	156-59-2	310.		2.	ug/l	2
05396	Chloroform	67-66-3	N.D.		2.	ug/l	2
05398	1,1,1-Trichloroethane	71-55-6	14.		2.	ug/l	2
05399	Carbon Tetrachloride	56-23-5	N.D.		2.	ug/l	2
05401	Benzene	71-43-2	N.D.		1.	ug/l	2
05402	1,2-Dichloroethane	107-06-2	N.D.		2.	ug/l	2
05403	Trichloroethene	79-01-6	1,900.		20.	ug/l	20
05404	1,2-Dichloropropane	78-87-5	N.D.		2.	ug/l	2
05406	Bromodichloromethane	75-27-4	N.D.		2.	ug/l	2
05407	Toluene	108-88-3	N.D.		1.	ug/l	2
05408	1,1,2-Trichloroethane	79-00-5	N.D.		2.	ug/l	2
05409	Tetrachloroethene	127-18-4	N.D.		2.	ug/l	2
05411	Dibromochloromethane	124-48-1	N.D.		2.	ug/l	2
05413	Chlorobenzene	108-90-7	N.D.		2.	ug/l	2
05415	Ethylbenzene	100-41-4	N.D.		2.	ug/l	2
05418	Styrene	100-42-5	N.D.		2.	ug/l	2
05419	Bromoform	75-25-2	N.D.		2.	ug/l	2
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		2.	ug/l	2
06302	Acetone	67-64-1	N.D.		12.	ug/l	2
06303	Carbon Disulfide	75-15-0	N.D.		2.	ug/l	2
06305	2-Butanone	78-93-3	N.D.		6.	ug/l	2
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.		2.	ug/l	2
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.		2.	ug/l	2
06308	4-Methyl-2-pentanone	108-10-1	N.D.		6.	ug/l	2
06309	2-Hexanone	591-78-6	N.D.		6.	ug/l	2

Lancaster Laboratories

Lancaster Laboratories Sample No. WW 4165150

MW33S-111303 Grab Groundwater Sample
Site Code: SC001 RFA# ET03076
Dayton Thermal/Dayton, OH
Collected:11/13/2003 16:45 by BE

Account Number: 10160

Submitted: 11/14/2003 09:10
Reported: 11/26/2003 at 17:36
Discard: 01/26/2004

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

33S-- SDG#: DCN81-27

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06310	Xylene (Total)	1330-20-7	N.D.	2.	ug/l	2

The reporting limits for the GC/MS volatile compounds were raised because sample dilution was necessary to bring target compounds into the calibration range of the system.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	11/21/2003 17:52	Susan McMahon-Luu	2
06291	TCL by 8260 (water)	SW-846 8260B	1	11/21/2003 18:16	Susan McMahon-Luu	20
01163	GC/MS VOA Water Prep	SW-846 5030B	1	11/21/2003 17:52	Susan McMahon-Luu	n.a.